Renovation of the

Bryan City Hall Annex

City Job Number 700-ME-0102

Owner: City of Bryan, P.O. Box 1000, Bryan, Texas 77805

Issued for permit and pricing
April 06, 2010

TASI Project Number 0918

LICENSED ARCHITECT
84276
STATE OF TEXAS
04/06/10

0918 Renovation of the Bryan City Hall Annex

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Paul Kasper, P.E.,	City Engineer
Barney Williams, P.E.	Project Manager

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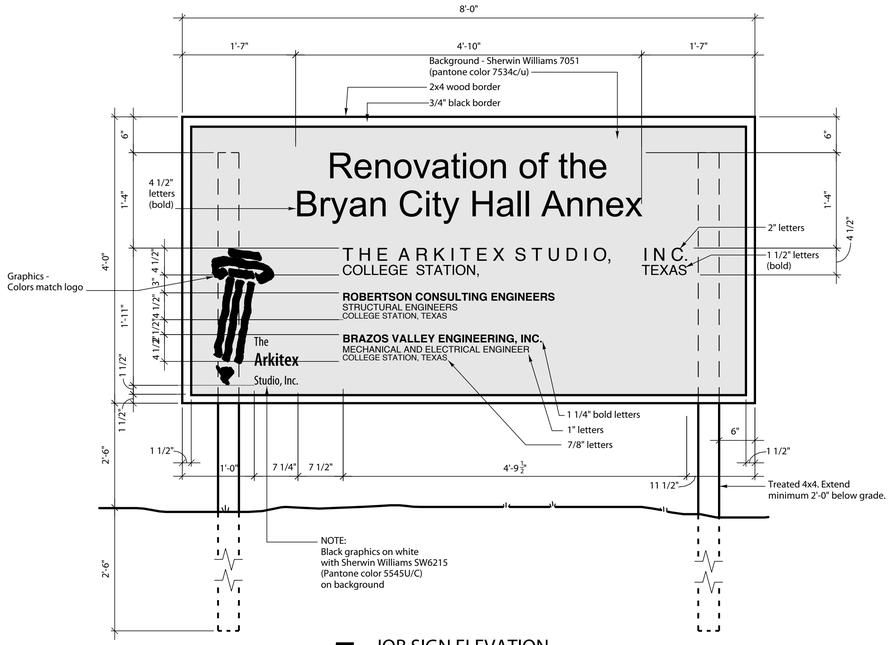
&	*And*
∠	*Angle*
[	*Channel*
℄	*Center line*
⌀	*Diameter or round*
∟	*Perpendicular*
#	*Pound or number*
A.B.	*Anchor Bolt*
ABV.	*Above*
A/C	*Air conditioning*
ACOUS.	*Acoustical*
A.D.	*Area drain*
ADD.	*Addendum*
ADD'L.	*Additional*
A.F.F.	*Above finished floor*
AGG.	*Aggregate*
A.H.U.	*Air handling unit*
ALLOW.	*Allowance*
ALT.	*Alternate*
ALUM.	*Aluminum*
ANOD.	*Anodized*
APPROX.	*Approximate(ly)*
ARCH.	*Architect(-ural)*
ASPH.	*Asphalt*
AUTO.	*Automatic*
AUX.	*Auxiliary*
AVG.	*Average*
BD.	*Board*
BLDG.	*Building*
BLK.	*Block*
BLKG.	*Blocking*
BM.	*Beam*
B.M.	*Bench mark*
BO	*By others*
BOTT.	*Bottom*
BSMT.	*Basement*
B.U.R.	*Built-up roofing*
CAB.	*Cabinet*
C.B.	*Catch basin*
CEM.	*Cement*
CER.	*Ceramic*
C.FLASH.	*Counterflashing*
C.F.M.	*Cubic feet per minute*
C.G.	*Corner guard*
C.H.	*Coat hook*
C.I.	*Cast iron*
C.J.	*Control joint*
CLG.	*Ceiling*
CLO.	*Closet*
CLR.	*Clear*
C.M.U.	*Concrete masonry unit*
COL.	*Column*
CONC.	*Concrete*
COND.	*Condition*
CONST.	*Construction(-ed)*
CONT.	*Continuous*
CORP.	*Corporation*
CORR.	*Corrigated*
CPT.	*Carpet*
C.R.	*Curtain rod*
CS.	*Countersink*
C.T.	*Ceramic tile*
CU. FT.	*Cubic feet (foot)*
CU. IN.	*Cubic inch (es)*
CU. YD.	*Cubic yard (es)*
DBL.	*Double*
DET.	*Detail*
D.F.	*Drinking fountain*
D.H.	*Double hung*
DIAG.	*Diagonal*
DIAM.	*Diameter*
DIM.	*Dimension*
DIV.	*Division*
DN.	*Down*
D.O.	*Door opening*
DP	*Dampproofing*
DR.	*Door*
D.W.	*Dishwasher*
DWL.	*Dowel*
D.S.	*Downspout*
DWG.	*Drawing (-s)*
DWR.	*Drawer*
E.	*East*
EA.	*Each*
E.B.	*Expansion bolt*
E.D.F.	*Electronic drinking fountain*
E.H.D.	*Electric hand dryer*
E.J.	*Expansion joint*
E.W.C.	*Electric water cooler*
ELEV.	*Elevation*
ELEC.	*Electric (-al)*
EMER.	*Emergency*
ENCL.	*Enclosure*
EQ.	*Equal*
EXH.	*Exhaust*
EXIST.	*Existing*
EXP.	*Expansion*
EXT.	*Exterior*
FAB.	*Fabric (-ate, -ated)*
F.A.	*Fire alarm*
F.D.	*Floor drain*
FDN.	*Foundation*
F.E.	*Fire extinguisher*
F.E.C.	*Fire extinguisher cabinet*
F.H.C.	*Fire hose cabinet*
F.H.R.	*Fire hose rack*
F.HYD.	*Fire hydrant*
FIN.	*Finish(-ed)*
F.L.	*Flow line*
FLASH.	*Flashing*
FLEX.	*Flexible*
FLR.	*Floor*
FLUOR.	*Fluorescent*
FT.	*Foot (Feet)*
FTG.	*Footing*
FURR.	*Furred*
FUT.	*Future*
F.W.C.	*Fabric wall covering*
GA.	*Gauge*
GALV.	*Galvanize(-d)*
G.B.	*Grab bar*
G.C.	*General contractor*
G.I.	*Galvanized iron*
GL.	*Glass, glaze(-d,-ing)*
GR.	*Grade*
GYP.	*Gypsum*
H.	*High*
H.B.	*Hose bib*
H.C.	*Handicapped*
HDWD.	*Hardwood*
HDWR.	*Hardware*
H.M.	*Hollow metal*
HORIZ.	*Horizontal*
H. PT.	*High point*
HR.	*Hour*
HT.	*Height*
HTG.	*Heating*
HVAC	*Heating, ventilation and air conditioning*
I.D.	*Inside dimension*
IN.	*Inch*
INCL.	*Include(-ing)*
INSUL.	*Insulation*
INT.	*Interior*
INV.	*Invert*
JAN.	*Janitor*
JST.	*Joist*
JT.	*Joint*
LAM.	*Laminate(-d)*
LAV.	*Lavitory*
LB.	*Pound*
LKR.	*Locker*
L.L.H.	*Long leg horizontal*
L.L.V.	*Long leg vertical*
L.PT.	*Low point*
LT.	*Light*
LTL.	*Lintel*
LVL.	*Level*
LVR.	*Louver*
MATL.	*Material*
MAX.	*Maximum*
MAS.	*Masonry*
M.B.	*Machine bolt*
M.C.	*Medicine cabinet*
MECH.	*Mechanical*
MED.	*Medium*
MEMB.	*Membrane*
MEZZ.	*Mezzanine*
MFR.	*Manufacturer*
M.H.	*Manhole*
MIN.	*Minimum*
MIR.	*Mirror*
MISC.	*Miscellaneous*
MLDG.	*Moulding*
M.O.	*Masonry opening*
MTD.	*Mounted*
MTL.	*Metal*
MTG.	*Mounting*
MULL.	*Mullion*
N.	*North*
N.I.C.	*Not in contract*
NO.	*Number*
NOM.	*Nominal*
N.T.S.	*Not to scale*
O.A.	*Overall*
O/A	*Outside air*
O.C.	*On center*
O.D.	*Outside diameter*
OFF.	*Office*
OH.	*Overhead*
OPNG.	*Opening*
OPP.	*Opposite (hand)*
OZ.	*Ounce*
PART.	*Partition*
PBD.	*Particle board*
P.C.C.	*Pre-cast concrete*
PL.	*Plate*
P.LAM.	*Plastic laminate*
PLAS.	*Plaster*
PLYWD.	*Plywood*
PNL.	*Panel(-ing)*
POL.	*Polish*
PR.	*Pair*
PRE-FIN.	*Pre-finish(-ed)*
P.S.F.	*Pounds per square foot*
P.S.I.	*Pounds per square inch*
PT.	*Point*
PTD.	*Painted*
P.V.C.	*Polyvinyl chloride*
PVMT.	*Pavement*
Q.T.	*Quarry tile*
QTR.	*Quarter*
R.	*Riser(s)*
R/A	*Return air*
RAD.	*Radius*
R.D.	*Roof drain*
RECEPT.	*Reception*
REF.	*Reference*
REFG.	*Refrigerator*
REINF.	*Reinforce(-d,-ing)*
REQD.	*Require(-d)*
RESIL.	*Resilient*
REV.	*Revise*
RM.	*Room*
R.O.	*Rough opening*
S.	*South*
S/A	*Supply air*
SAN.	*Sanitary*
S.C.	*Solid core*
SCHED.	*Schedule*
S.D.	*Soap dispenser*
SECT.	*Section*
SHWR.	*Shower*
SHT.	*Sheet*
SIM.	*Similar*
SL.	*Slope*
SPEC.	*Specification(-s)*
SPEC'D.	*Specified*
SQ.	*Square*
S.SK.	*Service sink*
S.ST.	*Stainless steel*
STA.	*Station*
STD.	*Standard, stained*
STL.	*Steel*
STOR.	*Storage*
STRUCT.	*Structure(-al)*
SURF.	*Surface*
SUSP.	*Suspended*
SVC.	*Service*
SYM.	*Symmetrical*
SYS.	*System*
T.	*Tread*
T.B.	*Towel bar*
T.C.	*Top of curb*
T.D.	*Towel dispenser*
T.D.R.	*Towel dispenser recept.*
TEL.	*Telephone*
TEMP.	*Tempered*
T&G	*Tongue and groove*
THK.	*Thick(-ness)*
THRES.	*Threshold*
T.P.	*Top of pavement*
TRTD	*Treated*
T.SL.	*Top of slab*
T.O.S.	*Top of steel*
T.T.D.	*Toilet tissue dispenser*
TYP.	*Typical*
U.N.O.	*Unless noted otherwise*
UR.	*Urinal*
V.B.	*Venetian blind*
V.C.T.	*Vinyl composition tile*
VERT.	*Vertical*
VEST.	*Vestibule*
V.I.F.	*Verify in Field*
V.W.C.	*Vinyl wall covering*
W.	*West*
W/	*With*
W.C.	*Water closet*
WD.	*Wood*

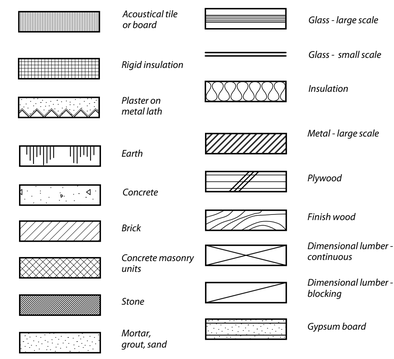
6 ABBREVIATIONS

Refer to: all drawings — No scale



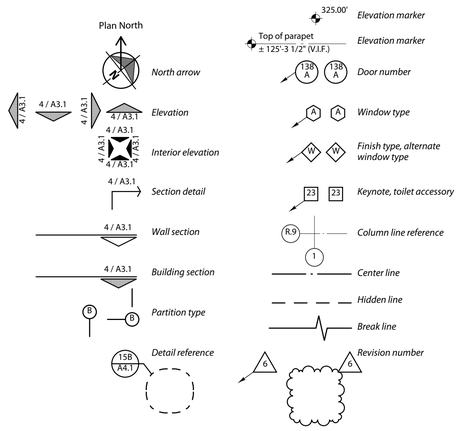
5 JOB SIGN ELEVATION

Refer to: 1/A1.1 — 1"=1'-0"



4 MATERIAL SYMBOLS

Refer to: all drawings — No scale



3 GRAPHIC SYMBOLS

Refer to: all drawings — No scale

2 CODE PLAN

Refer to: all drawings — No scale

PROJECT DESCRIPTION:

Existing three story building. Building was built in 1965. Building is sprinklered in basement only. Construction Type: IIIB.
Total of 24,841 gsf. (11,818 Basement, 11,347 First Floor, 1,676 Second Floor).

Applicable Codes:
2003 International Building Code Family; City of Bryan Amendments, Texas Accessibility Standards

IBC 2003	TOPIC	NOTES
Chapter 3	Occupancy	Office - Group B
T503	Allowable Height, Area	Group B, Type IIIB - 4 stories, 19,000 SF per floor
T601	FIre Resistance	Type IIIB, exterior bearing walls to be 2 hour rated.
T602	Exterior Wall Rating	Not required for non-load bearing walls if separation distance is greater than 30 feet. Building is separated in all sides.
T1004.1.1	Occupant Load	Office 24,841 sf divided by 100 = 250 occ Basement 11,818 sf divided by 100 = 119 First floor 11,347 sf divided by 100 = 114 Second floor 1,676 sf divided by 100 = 17
T1005.1	Egress Width	250 occupants times .2 inches = 50 inches required. 252 inches provided.
T1015.1	Travel Distance	200 feet max. without sprinkler system, 300 feet max. with sprinkler system.
T1016.3	Dead Ends	20 max. (50 if sprinklered)
T1017.1	Corridors	Not required to be rated if sprinklered.
T1019.1.	Number of Exits	If more that 1000 occupants, 4 exits required.
603 (Existing Buildin Code)	Vertical Openings	Vertical openings (stairs) shall be enclosed, where they are part of the work area. The existing stair to the mezzanine is not in the work area.
T2406.3	Safety Glass	Required in corridors if within 36 inches of walking surface.
T2902.1	Plumbing Fixtures Count	Business: 250 occupants: 1 wc per 25/50, then 1/50 for the remaining 6 wc required, 13 provided 1 lav /40 for first 80, then 1/80 for remaining 5 lavs required, 7 provided 1 df per 100 occupants 3 required, 3 provided 1 service sink , 1 provided

1 INDEX TO DRAWINGS

Refer to: all drawings — No scale

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LICENSED ARCHITECT 16378 STATE OF TEXAS
04/06/10

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Project 0918
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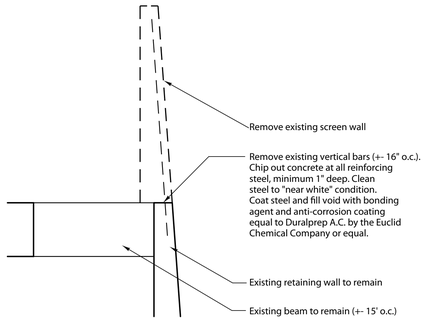
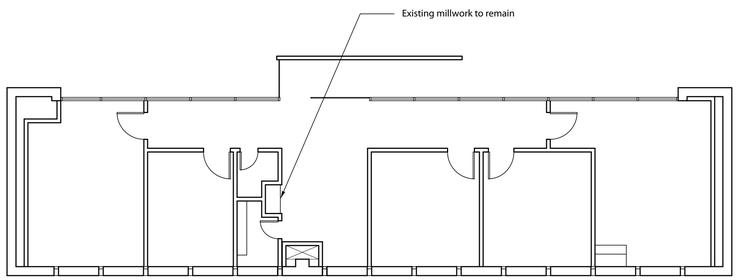
G1.1



3 EXISTING CONCRETE WALL DETAIL

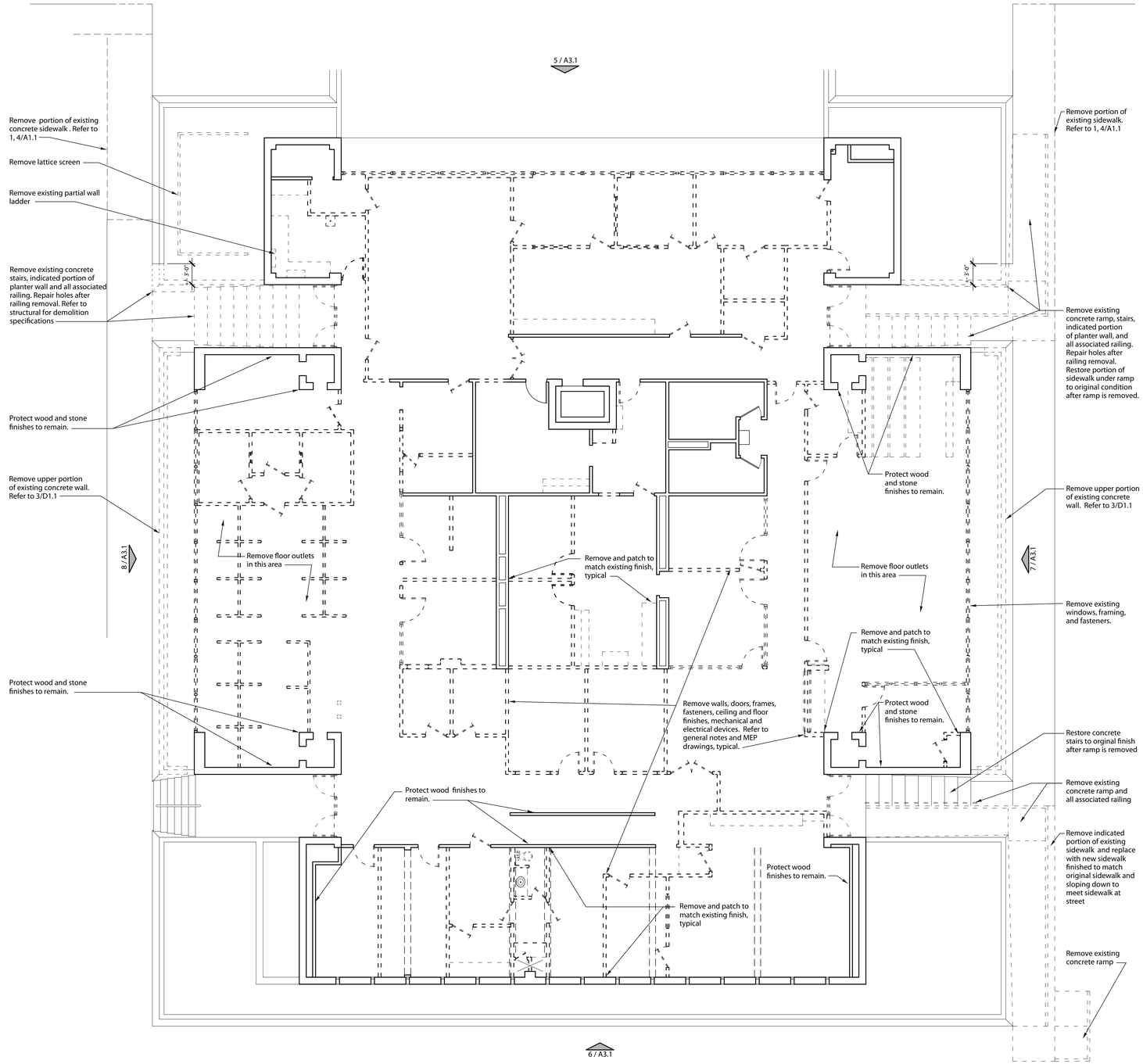
Refer to: 1/D1.1, 1/A1.1 Scale: 1/2"=1'-0"



NOTE: Remove all existing floor and ceiling finishes, this level only.

2 MEZZANINE DEMOLITION PLAN

Refer to: 2/A2.1, 1/D1.1 Scale: 1/8"=1'-0"



GENERAL NOTES - DEMOLITION

1. Remove all existing aluminum storefront doors and windows.
2. Remove all existing ceiling finishes unless otherwise specified on finish schedule, refer to 1/A5.1
3. Remove all existing carpet and floor finishes unless otherwise specified on finish schedule, refer to 1/A5.1.
4. Refer to sheets A1.1, A3.1, & A8.1 for additional demolition not indicated on demolition plans.
5. Remove carpet at stair #148.
6. Remove electrical floor outlets.
7. Remove all cabinets and shelving shown dashed
8. Protect existing stone and wood surfaces to remain from damage during demolition and construction activities

KEY

Items to be removed

Items to remain

Plan North

1 FIRST FLOOR DEMOLITION PLAN

Refer to: 1/A1.1, 1/A2.1 Scale: 1/8"=1'-0"

0' 4' 8'
2' 6' 10'

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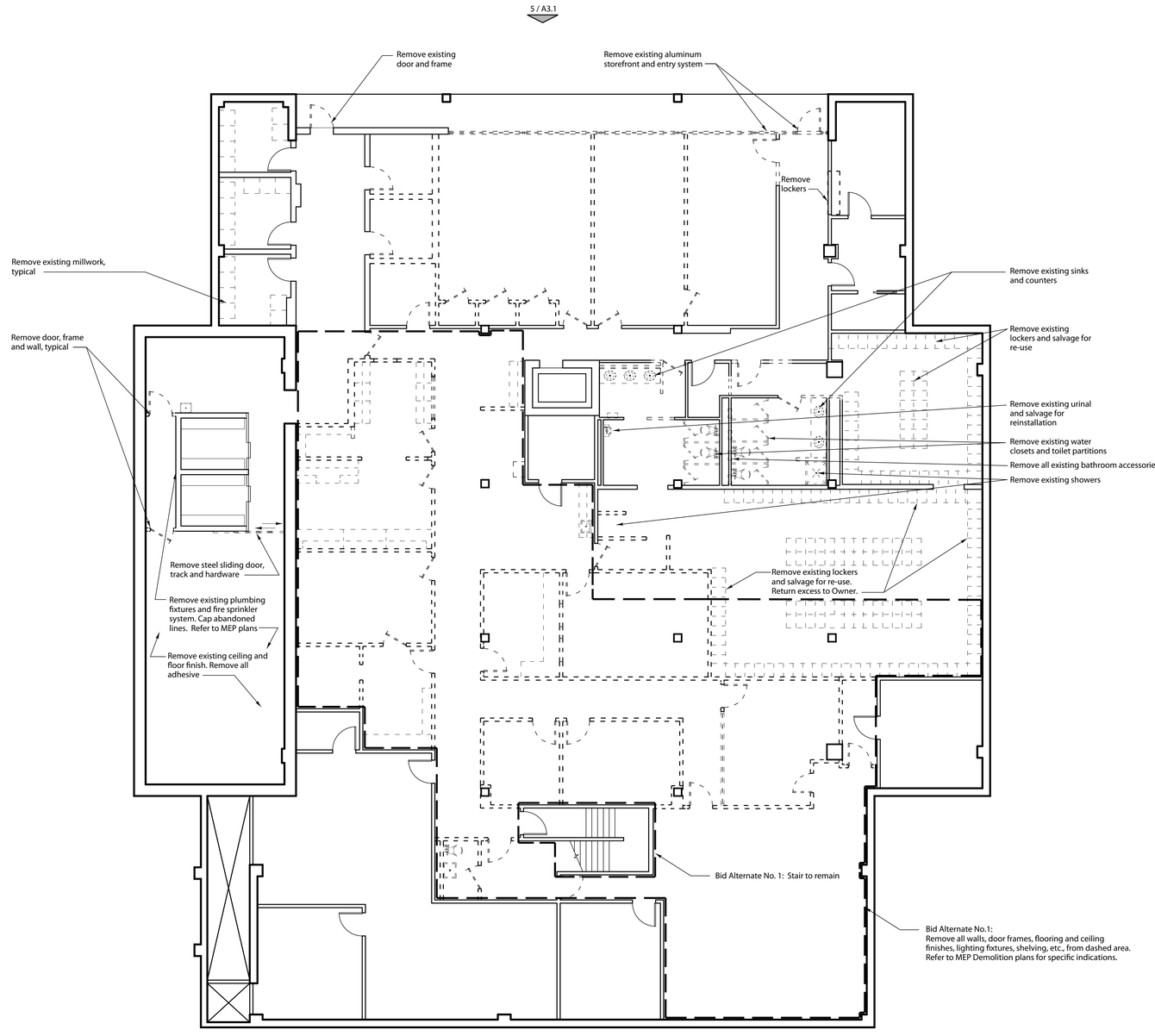

KEY

Items to be removed

Items to remain

NOTE: Refer to 1/D1.1 for General Notes

Plan North

1 BASEMENT DEMOLITION PLAN

Refer to: 1/A1.1

0' 4' 8' 2' 6' 10'

Scale: 1/8"=1'-0"

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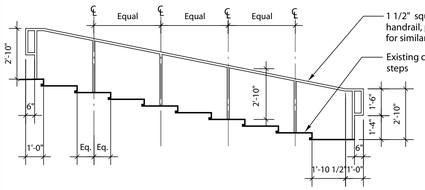
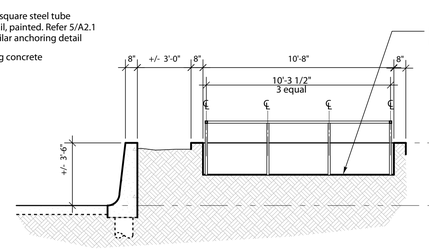
D1.2



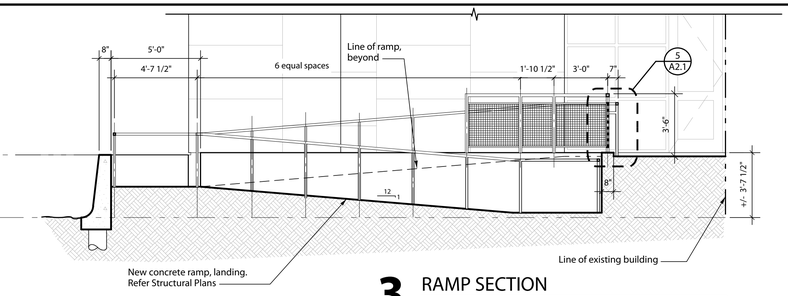
12 HANDRAIL -South West Entry steps

Refer to 1/A1.1; 1, 5/A2.1 Scale: 1/4"= 1'-0"



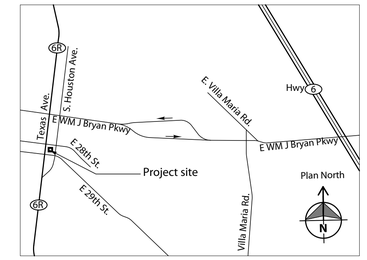
7 RAMP SECTION AT LANDING

Refer to: 4/A1.1, structural plans Scale: 1/4"=1'-0"



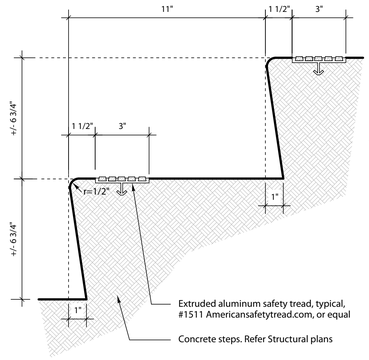
3 RAMP SECTION

Refer to: 4/A1.1 Scale: 1/4"=1'-0"



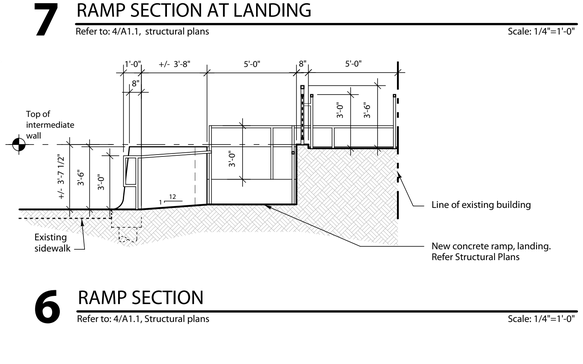
2 VICINITY MAP

Not to scale



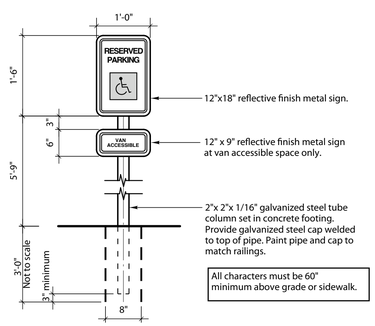
11 TREAD AND RISER DETAILS

Refer to 1/A1.1 Scale: 3"= 1'-0"



6 RAMP SECTION

Refer to: 4/A1.1, Structural plans Scale: 1/4"=1'-0"



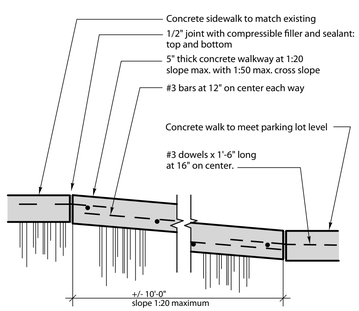
10 ACCESSIBLE PARKING SIGN

Refer to 1/A1.1 Scale: 3/4" = 1'-0"

Building Area: (gross)	24,841 SF
Required Parking:	1 space/250 SF = 100 spaces
Provided:	119 spaces (5 accessible parking required)

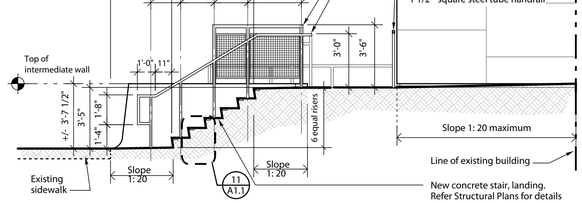
9 PARKING REQUIREMENTS ANALYSIS

Refer to 1/A1.1



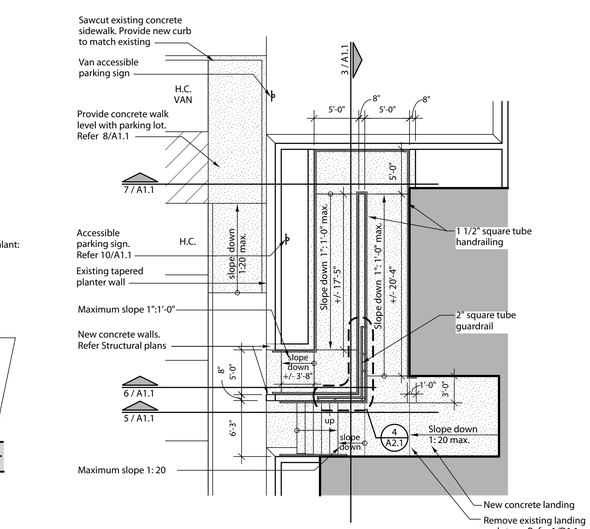
8 CURB RAMP

Refer to: 1/A1.1 Scale: 1"=1'-0"



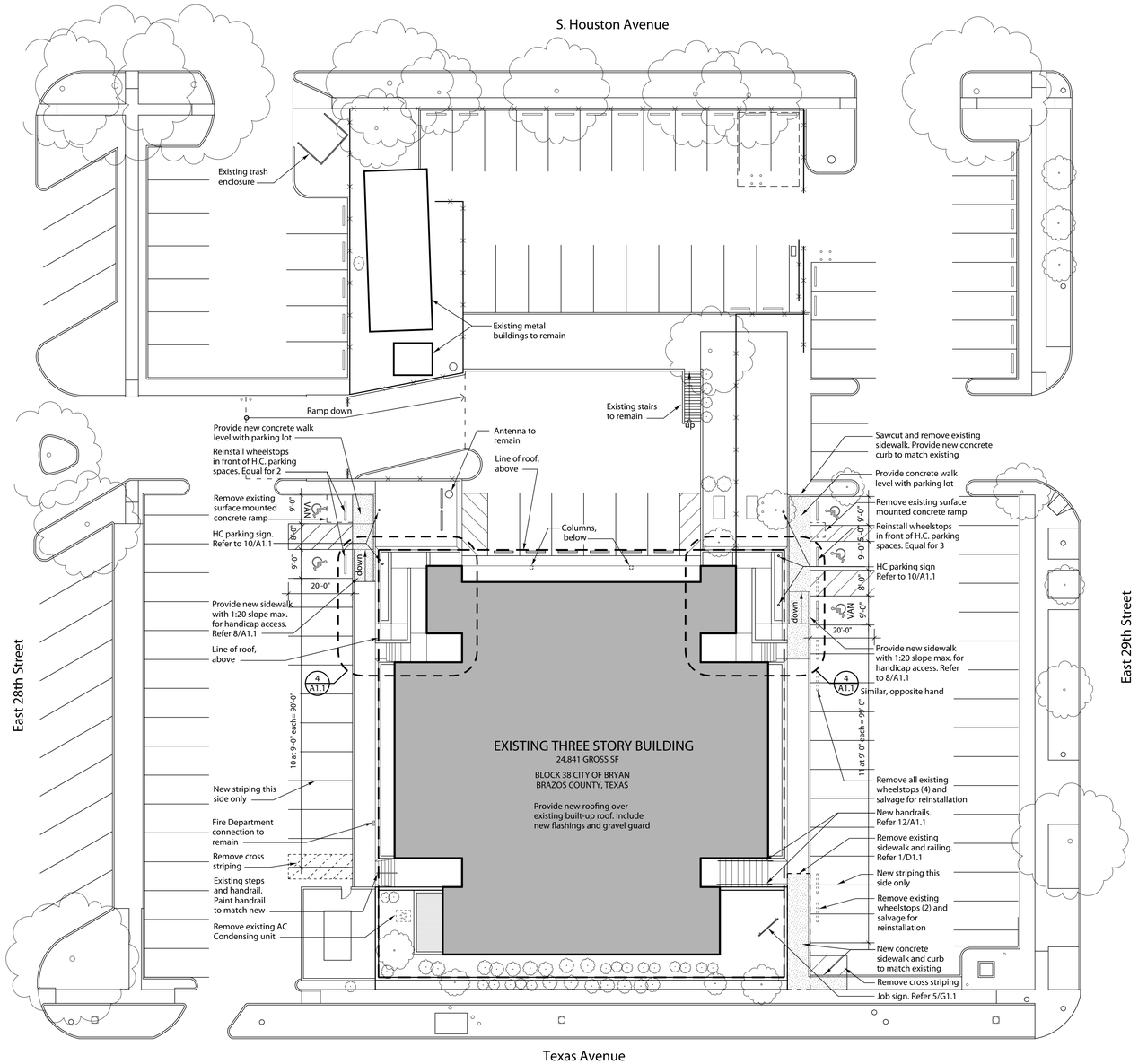
5 STEPS AND RAMP SECTION

Refer to: 4/A1.1 Scale: 1/4"=1'-0"



4 ENLARGED RAMP PLAN

Refer to: 1/A1.1 Scale: 1/8"=1'-0"



Verify all dimensions in field.

Plan North

0' 10' 20' 5' 15' 30'

1 SITE PLAN

Scale: 1"=20'-0"

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LICENSED ARCHITECT F4376 STATE OF TEXAS

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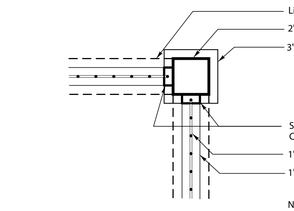
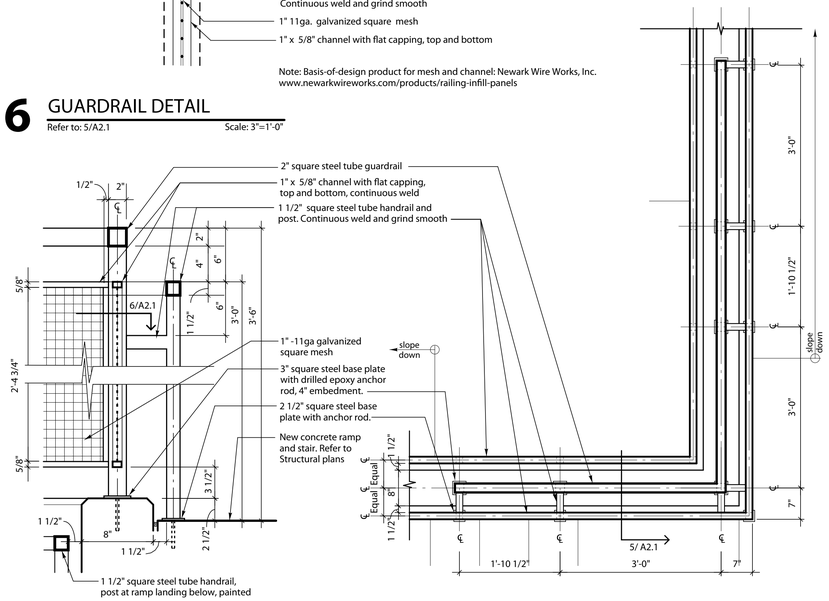


Note: Basis-of-design product for mesh and channel: Newark Wire Works, Inc. www.newarkwireworks.com/products/railing-infill-panels

6 GUARDRAIL DETAIL

Refer to: 5/A2.1 Scale: 3"=1'-0"

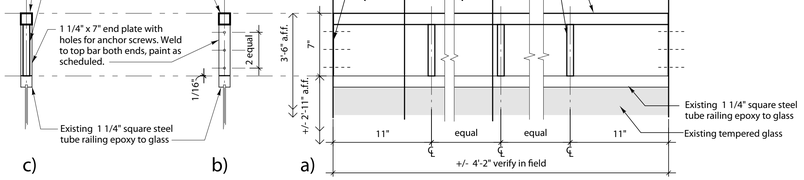


5 GUARDRAIL SECTION DETAIL

Refer to: 4/A2.1 Scale: 1 1/2"=1'-0"

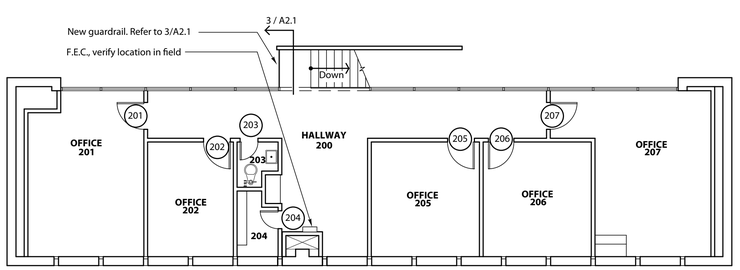
4 GUARDRAIL PLAN DETAIL

Refer to: 4/A1.1 Scale: 3/4"=1'-0"



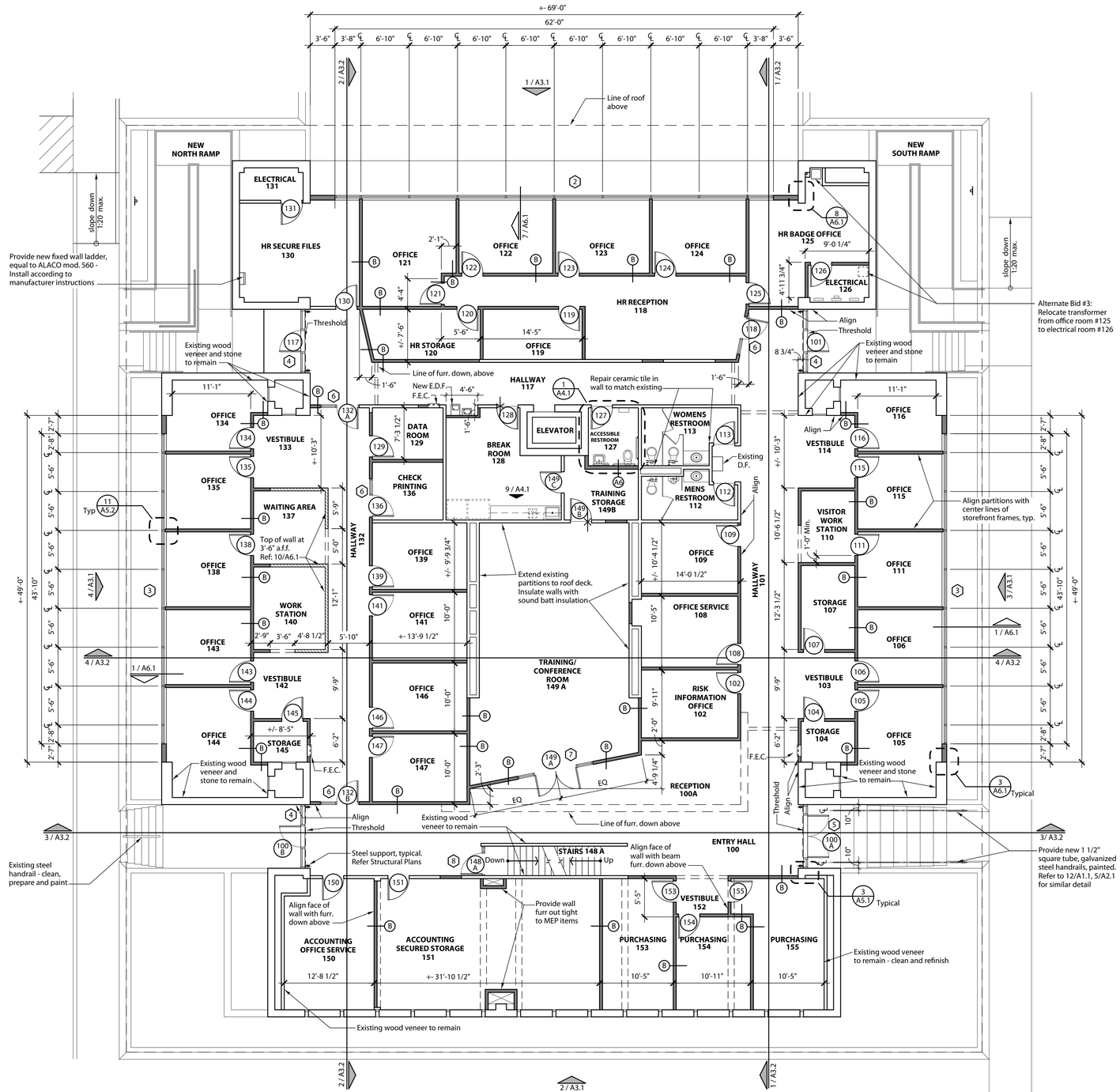
3 MEZZANINE RAIL DETAIL

Refer to: 2/A2.2; 1, 2/A3.2 Scale: 1 1/2"=1'-0"



2 MEZZANINE PLAN

Refer to: 1/A2.1 Scale: 1/8"=1'-0"



GENERAL NOTES

1. All partitions are type (A) unless noted otherwise. Refer to 9/A6.1 for partition types. Partition designations followed by "6" indicate walls with 6" studs.
2. Dimensions are to face of gypsum board or to face of existing partition or column unless noted otherwise. Where new partitions are coplanar with existing partitions, align finished wall surfaces. Verify all dimensions in field
3. Mount thermostats, light switches, etc., at 48" maximum above finish floor. Mount electrical outlets at 15" above finish floor minimum to bottom of plate.
4. Refer to A4.1 for Enlarged Restroom plans.
5. Refer to A5.2 for Opening and Door Types and Details.
6. Refer to 1/A8.1 and 1/A8.2 for Reflected Ceiling Plans.
7. Refer to A5.1 for door and finish schedules.
8. Overall dimensions are base on original project construction drawings. Verify in field.
9. Patch and repair all existing walls at the intersection where existing walls were removed. New finish to align with existing. New texture to match existing to remain.
10. Clean and refinish existing wood and stone finishes to remain.
11. Clean, prepare and paint existing hollow metal door frames to remain.
12. Upgrade existing elevator to meet Texas Accessibility Standards. This includes new car control buttons, hall lanterns, etc. Paint existing hall doors, frames and refinish wood panels.

KEY

- New wall
- New wall (low)
- Existing wall to remain

Plan North

1 FIRST FLOOR PLAN

Refer to: 1/A1.1 Scale: 1/8"=1'-0"

0' 4' 8' 2' 6' 10'

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LICENSED ARCHITECT 16378 STATE OF TEXAS

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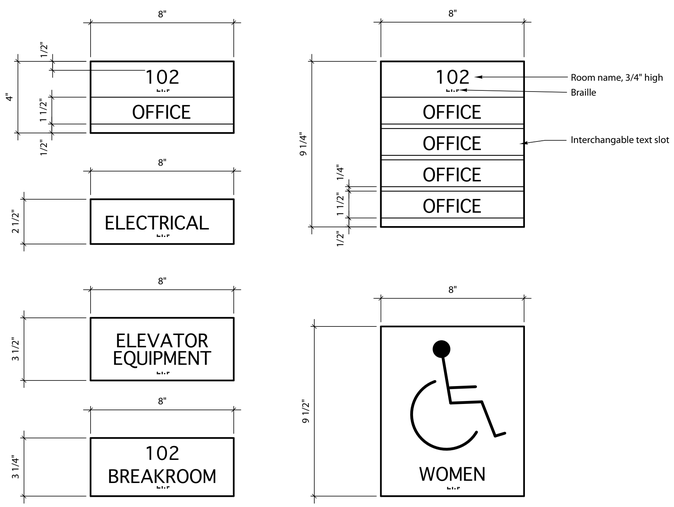
Sign Text	Size (h x w)	Notes
CONFERENCE	2x4	Braille panel only on side wall, Vinyl letters on door 149A
102 STORAGE	3.25x8	Adjacent to door 104
103 OFFICE	4x8	Changeable text window. Adjacent to door 105
104 OFFICE	4x8	Changeable text window. Adjacent to door 106
105 STORAGE	3.25 x8	Adjacent to door 107
106 OFFICE	4x8	Changeable text window. Adjacent to door 102
107 OFFICE	4x8	Changeable text window. Adjacent to door 108
108 OFFICE	4x8	Changeable text window. Adjacent to door 109
109 OFFICE	4x8	Changeable text window. Adjacent to door 111
110 OFFICE	4x8	Changeable text window. Adjacent to door 115
111 OFFICE	4x8	Changeable text window. Adjacent to door 116
112 OFFICE	4x8	Changeable text window. Adjacent to door 125
113 OFFICE	4x8	Changeable text window. Adjacent to door 124
114 OFFICE	4x8	Changeable text window. Adjacent to door 123
115 OFFICE	4x8	Changeable text window. Adjacent to door 122
116 OFFICE	4x8	Changeable text window. Adjacent to door 121
117 STORAGE	3.25 x8	Adjacent to door 120
118 OFFICE	4x8	Changeable text window. Adjacent to door 119
119 BREAK ROOM	3.25 x8	Adjacent to door 128
120 STORAGE	3.25 x8	Adjacent to door 130
ELECTRICAL	2.5 x8	Adjacent to door 131
122 STORAGE	3.25 x8	Adjacent to door 145
123 OFFICE	4x8	Changeable text window. Adjacent to door 144
124 OFFICE	4x8	Changeable text window. Adjacent to door 143
125 OFFICE	4x8	Changeable text window. Adjacent to door 138
126 OFFICE	4x8	Changeable text window. Adjacent to door 135
127 OFFICE	4x8	Changeable text window. Adjacent to door 134
128 OFFICE	4x8	Changeable text window. Adjacent to door 147
129 OFFICE	4x8	Changeable text window. Adjacent to door 146
130 OFFICE	4x8	Changeable text window. Adjacent to door 141
131 OFFICE	4x8	Changeable text window. Adjacent to door 139
132 PRINTING	3.25 x8	Adjacent to door 136
133 DATA	3.25 x8	Adjacent to door 129
134 OFFICE	9.25x8	Changeable text window (4 Lines). Adjacent to door 150
135 STORAGE	3.25 x8	Adjacent to door 151
136 OFFICE	4x8	Changeable text window. Adjacent to door 153
137 OFFICE	4x8	Changeable text window. Adjacent to door 154
138 OFFICE	4x8	Changeable text window. Adjacent to door 155
MEN	2.5x8	Adjacent to door 112
WOMEN	2.5x8	Adjacent to door 113
UNISEX	9.5x8	Provide symbol. Adjacent to door 127
STORAGE	2.5x8	Adjacent to door 149B
STAIR	2.5x8	Adjacent to door 148A
ELECTRICAL	2.5x8	Adjacent to door 126
M201 OFFICE	4x8	Changeable text window. Adjacent to door 201
M202 OFFICE	4x8	Changeable text window. Adjacent to door 202
M203 OFFICE	4x8	Changeable text window. Adjacent to door 205
M204 OFFICE	4x8	Changeable text window. Adjacent to door 206
M205 OFFICE	4x8	Changeable text window. Adjacent to door 207
UNISEX	2.5x8	Adjacent to door 203
B001 FITNESS CENTER	3.5X8	Adjacent to door 005A
B002 STORAGE	3.25 x8	Adjacent to door 003
B003 STORAGE	3.25 x8	Adjacent to door 017
B004 STORAGE	3.25 x8	Adjacent to door 016
B005 STORAGE	3.25 x8	Adjacent to door 015
B006 STORAGE	3.25 x8	Adjacent to door 014
WOMEN	9.5x8	Provide symbol. Adjacent to door 006
MEN	9.5x8	Provide symbol. Adjacent to door 010
CUSTODIAN	2.5x8	Adjacent to door 009
ELEVATOR EQUIPMENT	3.5X8	Adjacent to door 019
ELECTRICAL	2.5x8	Adjacent to door 020
DATA	2.5x8	Adjacent to door 021
STAIR	2.5x8	Adjacent to door 148B
MECHANICAL	2.5x8	Adjacent to door 022A

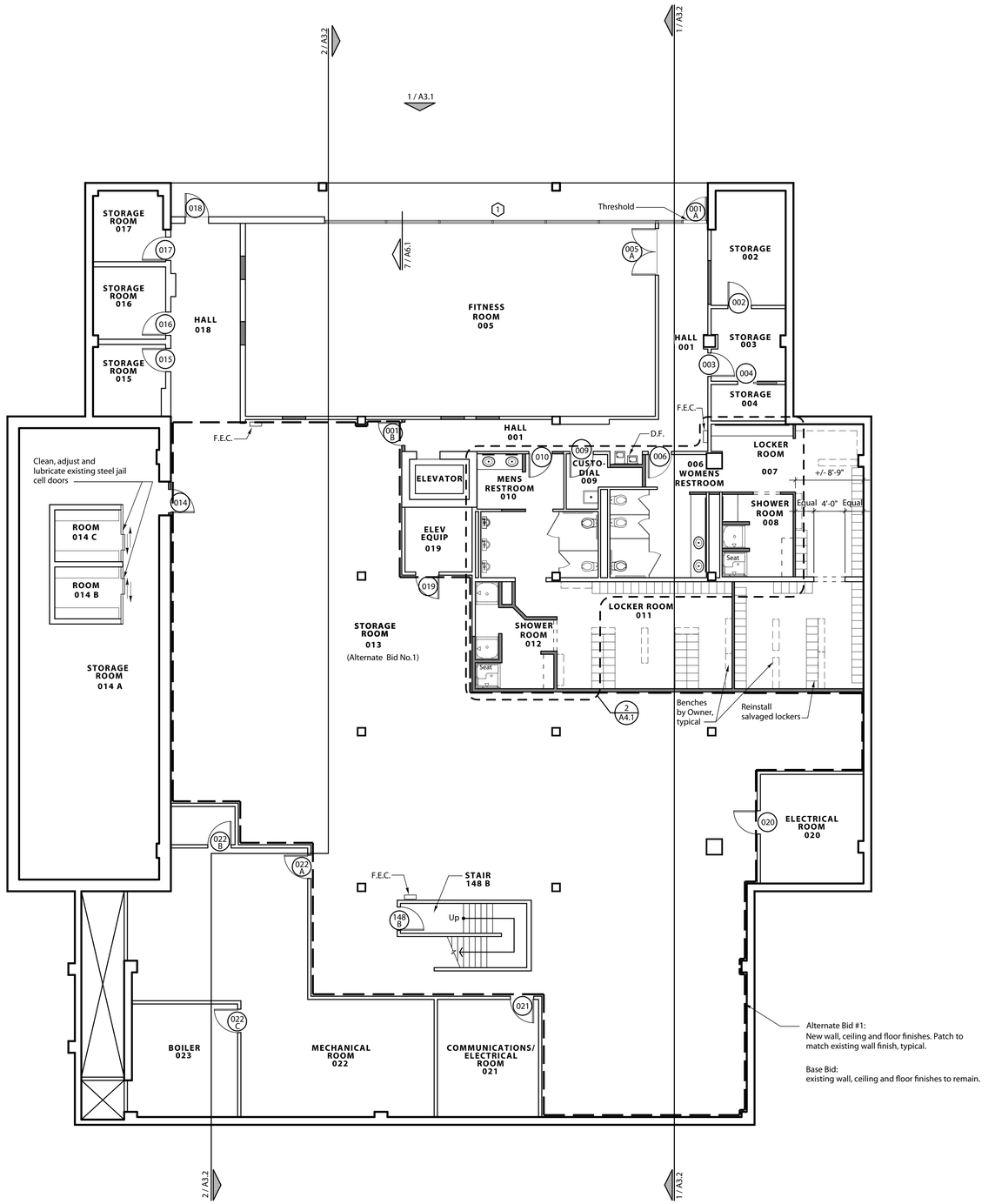
3 SIGN SCHEDULE

Refer to: 1, 2/A2.1, 1/A2.2



2 SIGN DETAILS

Refer to: 3/A2.2 Scale: 3"=1'-0"



NOTE: Refer to 1/A2.1 for General notes and Key

1 BASEMENT FLOOR PLAN

Refer to: 1/A1.1 Scale: 1/8"=1'-0"

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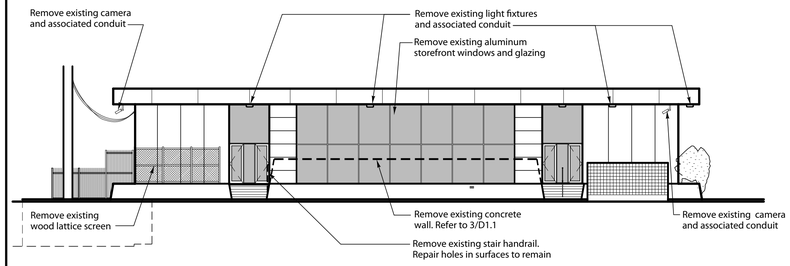
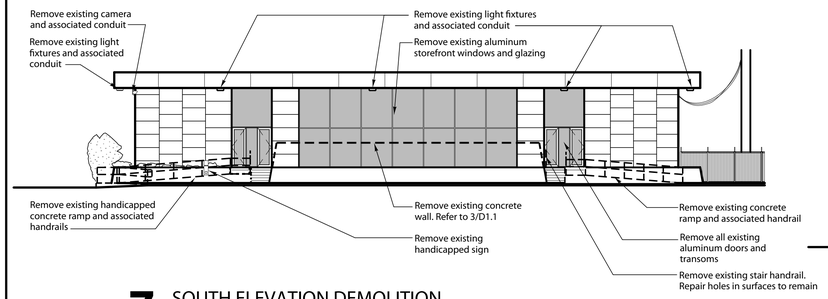


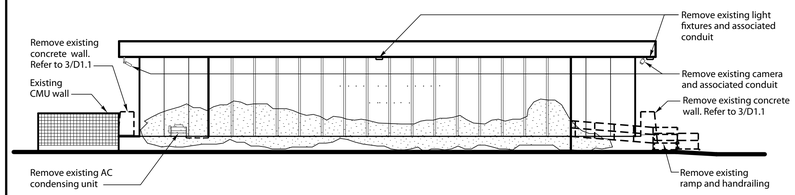
8 NORTH ELEVATION DEMOLITION

Refer to: 1/D1.1 — Scale: 1/16"=1'-0"



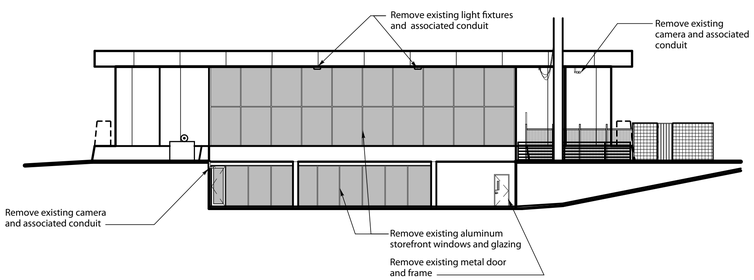
7 SOUTH ELEVATION DEMOLITION

Refer to: 1/D1.1 — Scale: 1/16"=1'-0"



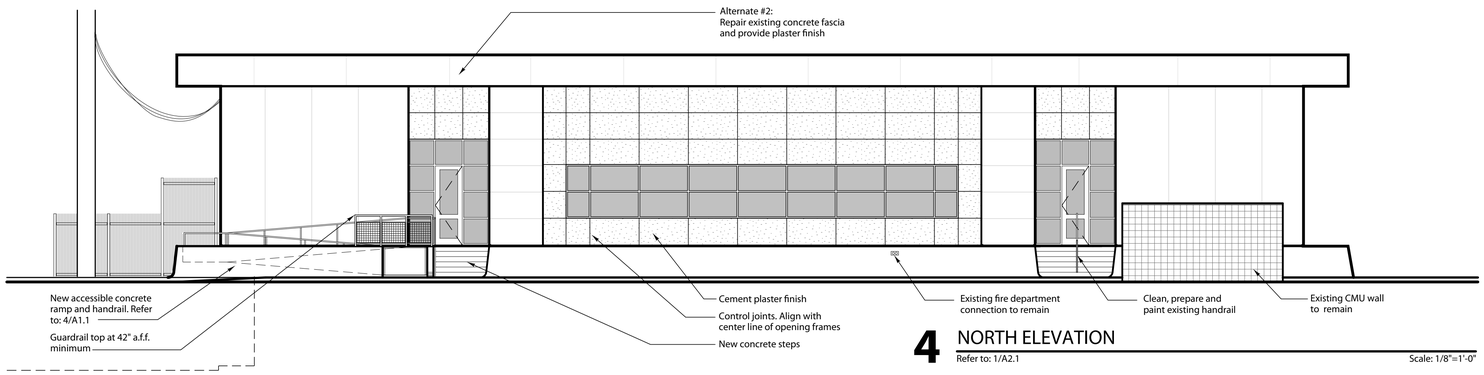
6 WEST ELEVATION DEMOLITION

Refer to: 1/D1.1 — Scale: 1/16"=1'-0"



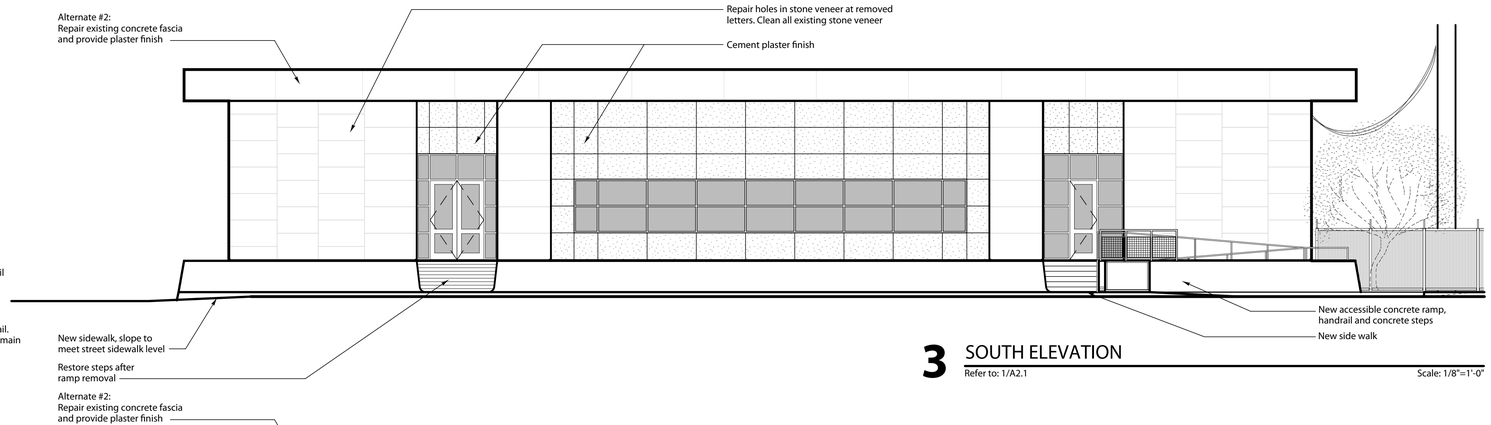
5 EAST ELEVATION DEMOLITION

Refer to: 1/D1.1, 1/D1.2 — Scale: 1/16"=1'-0"



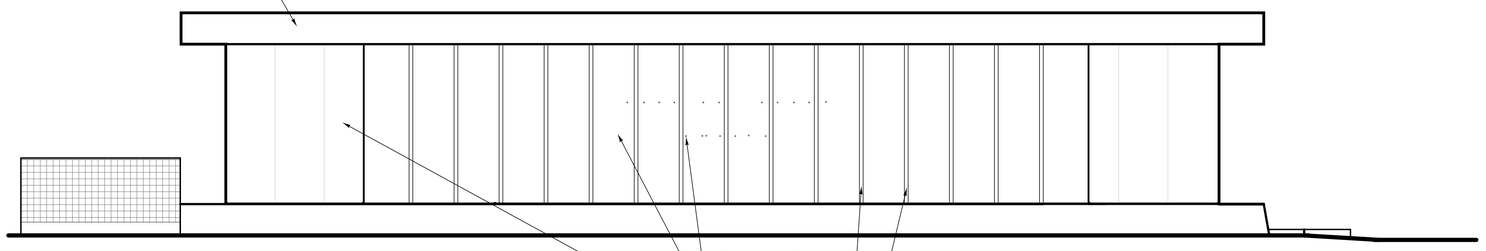
4 NORTH ELEVATION

Refer to: 1/A2.1 — Scale: 1/8"=1'-0"



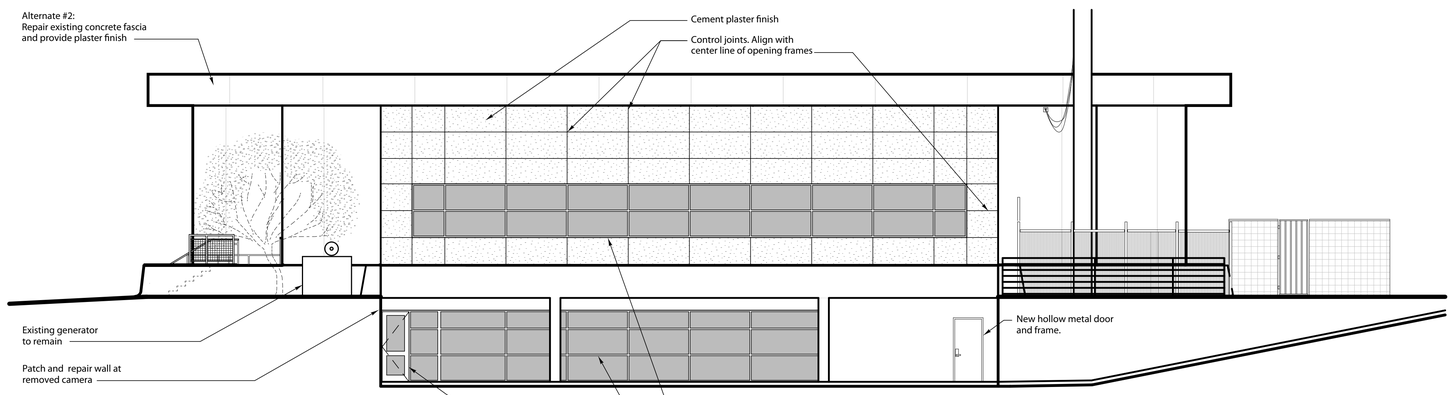
3 SOUTH ELEVATION

Refer to: 1/A2.1 — Scale: 1/8"=1'-0"



2 WEST ELEVATION

Refer to: 1/A2.1 — Scale: 1/8"=1'-0"



1 EAST ELEVATION

Refer to: 1/A2.1, 1/A2.2 — Scale: 1/8"=1'-0"

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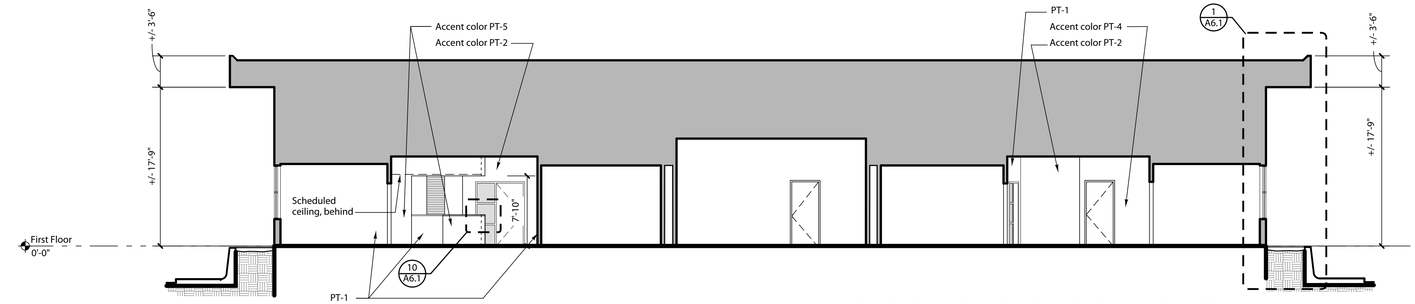
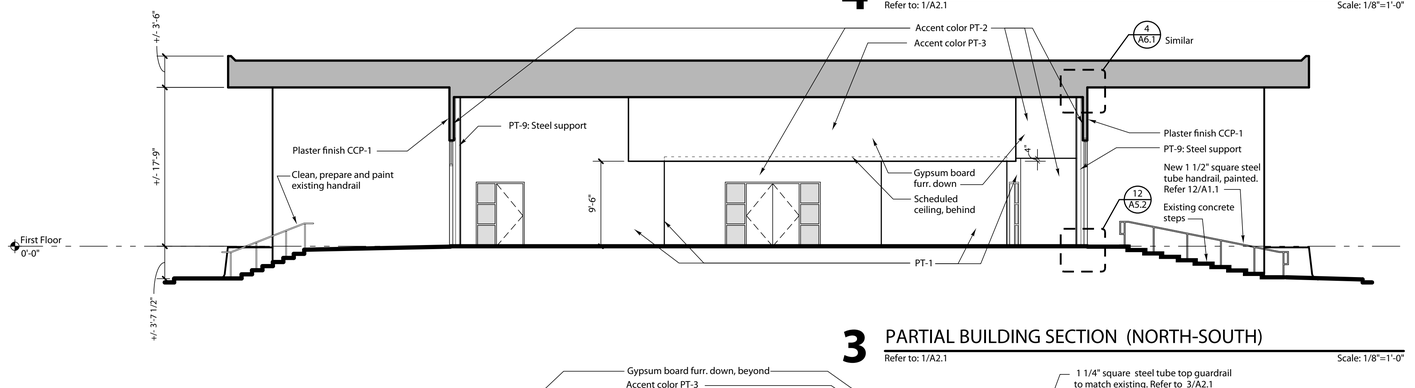


4 PARTIAL BUILDING SECTION (NORTH-SOUTH)

Refer to: 1/A2.1 Scale: 1/8"=1'-0"



3 PARTIAL BUILDING SECTION (NORTH-SOUTH)

Refer to: 1/A2.1 Scale: 1/8"=1'-0"

2 BUILDING SECTION (EAST-WEST)

Refer to: 1/A2.1, 1/A2.2 Scale: 1/8"=1'-0"

NOTE:
- Offices, common areas, corridors and storage spaces to be painted PT-1, unless noted otherwise.

1 BUILDING SECTION (WEST-EAST)

Refer to: 1/A2.1, 1/A2.2 Scale: 1/8"=1'-0"

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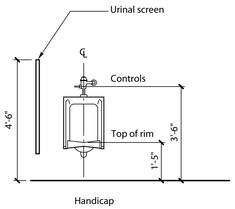
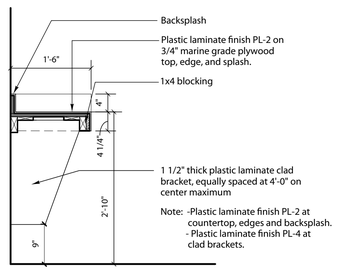


13 TYPICAL URINAL ELEVATION

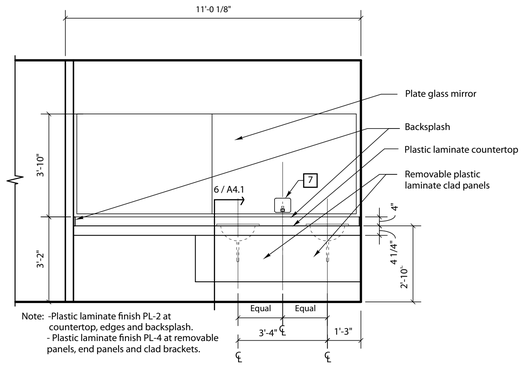
Refer to: 2/A4.1 Scale: 3/8" =1'-0"



Note: -Plastic laminate finish PL-2 at countertop, edges and backsplash.
- Plastic laminate finish PL-4 at clad brackets.

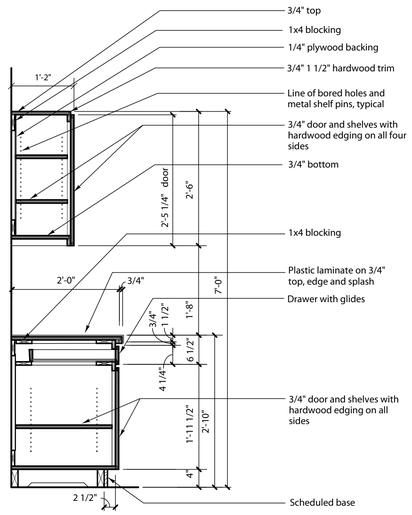
12 VANITY SECTION

Refer to: 2/A4.1 Scale: 3/4" =1'-0"



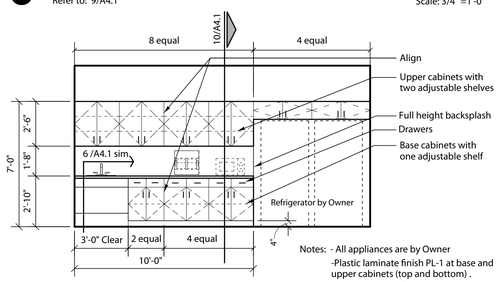
11 WOMEN'S RESTROOM

Refer to: 2/A4.1 Scale: 3/8" =1'-0"



10 CABINET SECTION

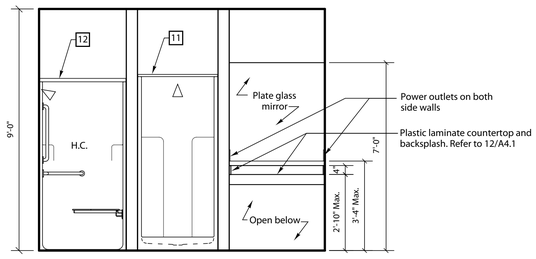
Refer to: 9/A4.1 Scale: 3/4" =1'-0"



Notes: - All appliances are by Owner
-Plastic laminate finish PL-1 at base and upper cabinets (top and bottom) .
-Plastic laminate finish PL-2 at countertop, edges and backsplash

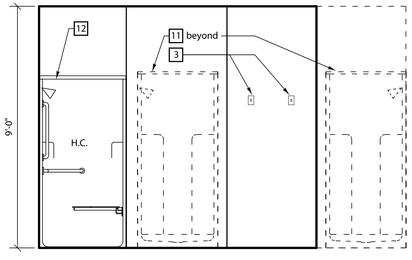
9 BREAKROOM ELEVATION

Refer to: 1/A2.1 Scale: 1/4" =1'-0"



8 WOMEN'S SHOWER ROOM

Refer to: 2/A4.1 Scale: 3/8" =1'-0"



7 MEN'S SHOWER ROOM

Refer to: 2/A4.1 Scale: 3/8" =1'-0"

1 Grab bar (Bobrick B-6806 x 36) with solid wall anchors (Bobrick 2573).

2 Grab bar (Bobrick B-6806 x 42) with solid wall anchors (Bobrick 2573).

11 Prefabricated fiberglass shower stall, 36"x36" clear inside dimension, furnished unit complete with soap dish, shower head & controls, drain fitting, curtain rod & hooks, water retainer. Refer to MEP drawings for manufacturer and model number.

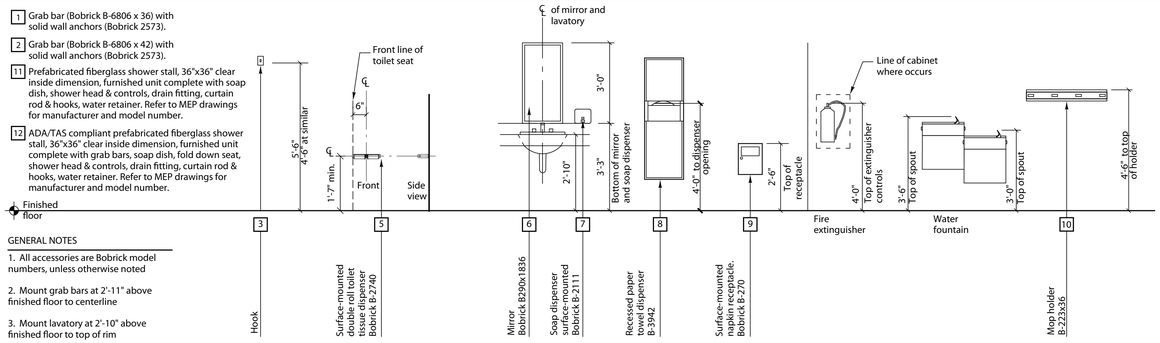
12 ADA/TAS compliant prefabricated fiberglass shower stall, 36"x36" clear inside dimension, furnished unit complete with grab bars, soap dish, fold down seat, shower head & controls, drain fitting, curtain rod & hooks, water retainer. Refer to MEP drawings for manufacturer and model number.

GENERAL NOTES

1. All accessories are Bobrick model numbers, unless otherwise noted

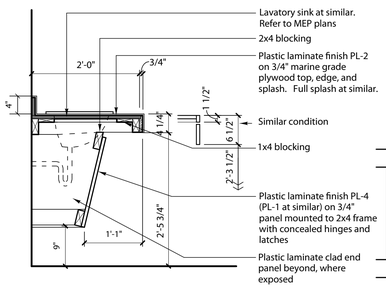
2. Mount grab bars at 2'-11" above finished floor to centerline

3. Mount lavatory at 2'-10" above finished floor to top of rim



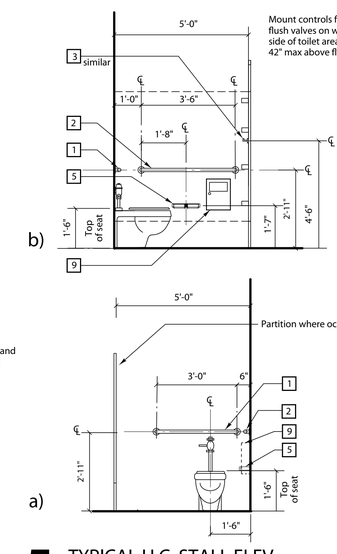
3 TYPICAL MOUNTING HEIGHTS

Refer to: 1, 2, 4, 5, 6 /A4.1 Scale: 3/8" =1'-0"



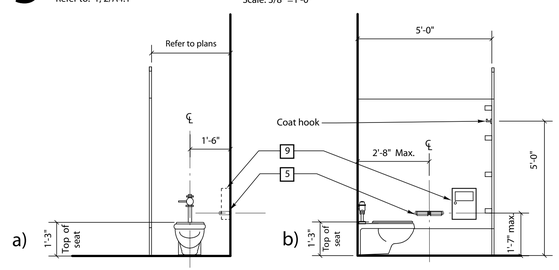
6 TYPICAL LAVATORY SECTION

Refer to: 2, 9/A4.1 Scale: 3/4" =1'-0"



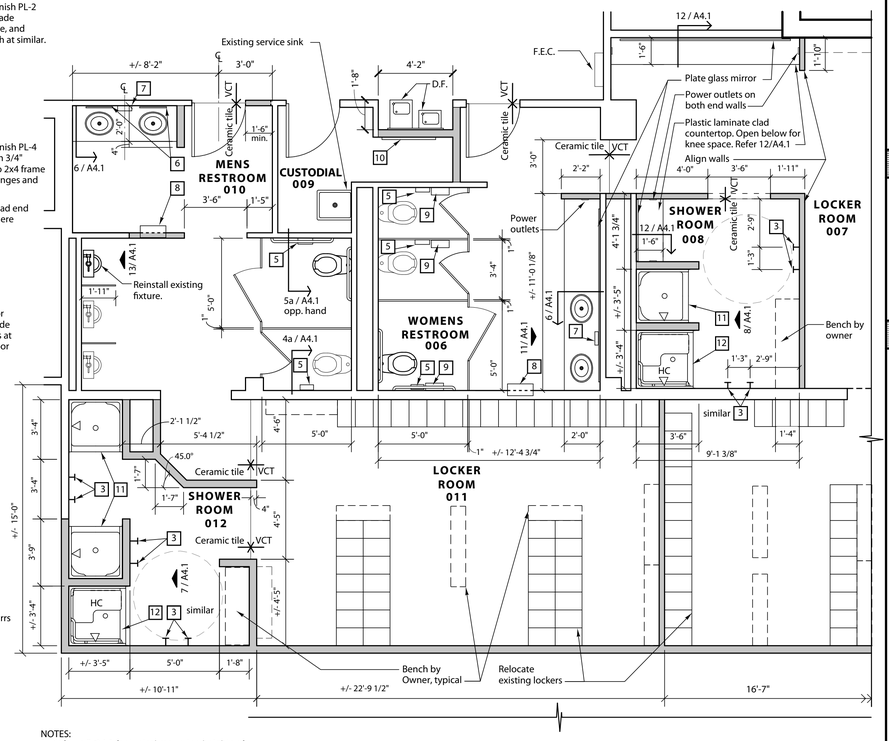
5 TYPICAL H.C. STALL ELEV.

Refer to: 1, 2/A4.1 Scale: 3/8" =1'-0"



4 TYPICAL STALL ELEV.

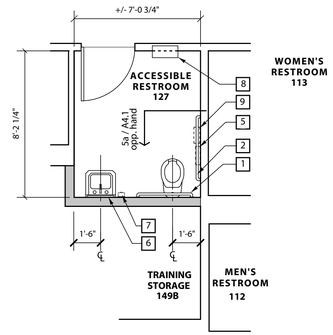
Refer to: 2/A4.1 Scale: 3/8" =1'-0"



NOTES:
1. Refer to 3/A4.1 for typical mounting heights of restroom fixtures and accessories.
2. Dimensions are to face of gypsum board. Verify all dimensions in field. Align new wall partitions to existing partitions, unless noted otherwise.
3. Verify prefabricated shower stall manufacturer specifications for framing dimensions and requirements, for each shower type.
4. Insulate exposed piping under lavatories.
5. All toilet partitions adn urinal screens are new.

2 ENLARGED PLAN

Refer to: 1/A2.2 Scale: 1/4"=1'-0"



1 ENLARGED PLAN

Refer to: 1/A2.1 Scale: 1/4"=1'-0"

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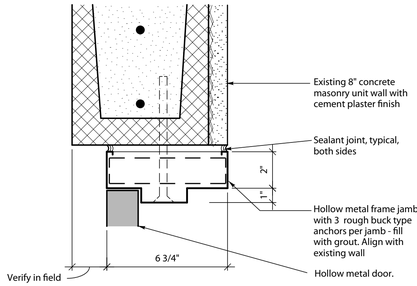
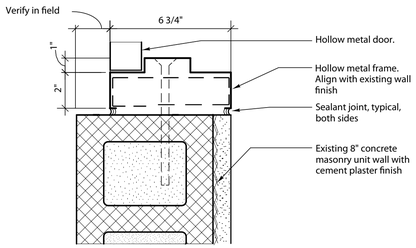


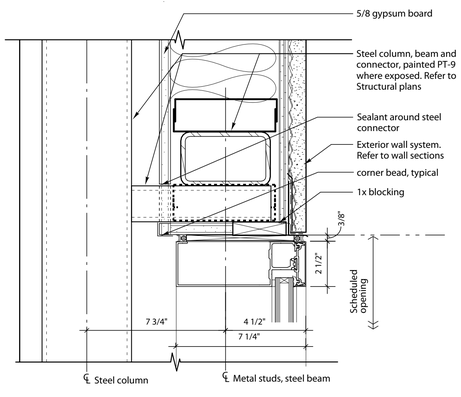
6 HOLLOW METAL DOOR HEAD

Refer to: 2/A5.1 — Scale: 3"= 1'-0"



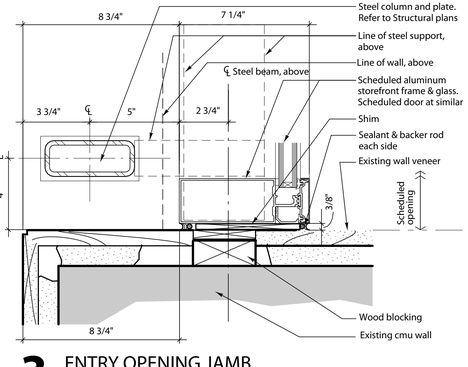
5 HOLLOW METAL DOOR JAMB

Refer to: 2/A5.1 — Scale: 3"= 1'-0"



4 ENTRY OPENING HEAD

Refer to: 1/A5.2 — Scale: 3"= 1'-0"



3 ENTRY OPENING JAMB

Refer to: 1/A2.1, 1/A5.2 — Scale: 3"= 1'-0"

Number	Door Width	Door Height	Door Type	Door Detail Head	Door Detail Jamb	Door frame	Hardware Set	Remarks
100A	Pair 3'-0"	8'-10"	B	4/A5.1	3/A5.1	Storefront	1	Closer, electric strike, card reader
100B	3'-0"	8'-10"	B	4/A5.1	3/A5.1	Storefront	2	Closer, electric strike, card reader
101	3'-0"	8'-10"	B	4/A5.1	3/A5.1	Storefront	2	Closer, electric strike, card reader
102	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
104	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	4	
105	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
106	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
107	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	4	
108	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
109	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
111	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
112	Existing	Existing				Existing	20	New kick plate and push plate
113	Existing	Existing				Existing	20	New kick plate and push plate
115	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
116	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
117	3'-0"	8'-10"	B	4/A5.1	3/A5.1	Storefront	2	Closer, electric strike, card reader
118	3'-0"	7'-0"	C	4/A5.2	3/A5. 2	Aluminum	5	Closer, electric strike, card reader
119	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
120	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	4	
121	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
122	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
123	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
124	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
125	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
126	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	4	
127	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	6	
128	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	7	Closer
129	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	4	
130	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	17	Closer, electric strike, card reader
131	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	4	
132A	3'-0"	7'-0"	C	4/A5.2	3/A5. 2	Aluminum	18	Closer, electric strike, card reader
132B	3'-0"	7'-0"	C	4/A5.2	3/A5. 2	Aluminum	18	Closer, electric strike, card reader
134	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
135	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
136	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
138	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
139	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
141	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
143	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
144	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
145	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	4	
146	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
147	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
148A	3'-0"	7'-0"	C	4/A5.2	3/A5. 2	Aluminum	8	Closer, electric strike, card reader - both sides
148B	Existing	Existing				Existing	15	Replace Lockset
149A	Pair 3'-0"	7'-0"	C	4/A5.2	3/A5. 2	Aluminum	9	Closer
149B	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	4	
149C	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	4	
150	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
151	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	11	Closer, electric strike, card reader
153	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
154	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
155	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	3	
201	Existing	Existing				Existing	10	Replace Lockset
202	Existing	Existing				Existing	10	Replace Lockset
203	Existing	Existing				Existing	12	Replace Lockset
204	Existing	Existing				Existing	13	Replace Lockset
205	Existing	Existing				Existing	10	Replace Lockset
206	Existing	Existing				Existing	10	Replace Lockset
207	Existing	Existing				Existing	10	Replace Lockset
001A	3'-0"	7'-10"	B	10/A5.2	9/A5.2	Storefront	2	Closer, electric strike, card reader
001B	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	17	Closer, electric strike, card reader
002	Existing	Existing				Existing	13	Replace Lockset
003	Existing	Existing				Existing	13	Replace Lockset
004	Existing	Existing				Existing	Existing	
005A	Pair 3'-0"	7'-0"	D	4/A5.2	3/A5. 2	Aluminum	9	Closer
006	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	7	Closer
009	Existing	Existing				Existing	13	Replace Lockset
010	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	7	Closer
014	3'-0"	7'-0"	A	4/A5.2	3/A5. 2	Aluminum	19	Closer, electric strike, card reader
015	Existing	Existing				Existing	14	Replace Lockset
016	Existing	Existing				Existing	14	Replace Lockset
017	Existing	Existing				Existing	14	Replace Lockset
018	3'-4"	7'-0"	E	6/A5.1	5/A5.1	H.M.	16	Closer, electric strike, card reader
019	Existing	Existing				Existing	13	Replace Lockset
020	Existing	Existing				Existing	13	Replace Lockset
021	Existing	Existing				Existing	13	Replace Lockset
022A	Existing	Existing				Existing	13	Replace Lockset
022B	Existing	Existing				Existing	Existing	
022C	Existing	Existing				Existing	Existing	

2 DOOR SCHEDULE

Refer to: 1/A2.1, 1/A2.2 — Scale: no scale

ROOM NUMBER / NAME	FLOOR	BASE	WALLS	CEILING	COMMENTS
100 Entry Hall	Carpet CPT-1	Rubber Cove B-1	Painted gypsum board PT-1	ACT-1	Refer to 3, 2, 1/A3.2; PT-9: Steel columns at entry doors
100A Reception	Carpet CPT-1	Rubber Cove B-1	Painted gypsum board PT-1, PT-2: Training Room #149 exterior side, PT-3: furr-down above		
101 Hallway	Carpet CPT-1	Rubber Cove B-1	Painted gypsum board PT-1, PT-4: South wall, PT-2: North wall (restrooms' access recess)	ACT	Refer to 4/A3.2
102 Risk Information Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
103 Vestibule	Carpet CPT-1	Rubber Cove B-1	Painted gypsum board, PT-1: South wall, PT-4: East wall	ACT	Refer to 4/A3.2
104 Storage	VCT 1	Rubber Cove B-2	Painted gypsum board PT-1	ACT	
105 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
106 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
107 Storage	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
108 Office Service	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
109 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
110 Visitor Work Station	Carpet	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
111 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
112 Men's Restroom	Existing	Existing	Painted gypsum board PT-1	Existing	
113 Women's Restroom	Existing	Existing	Painted gypsum board PT-1	Existing	Repair tiles: wall behind wc; corner.
114 Vestibule	Carpet	Rubber Cove B-1	Painted gypsum board, PT-1: South wall, PT-4: West wall	ACT	Refer to 4/A3.2
115 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
116 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
117 Hallway	Carpet CPT-1	Rubber Cove B-1	Painted gypsum board PT-1, PT-2: East walls next to Entry doors.	ACT	Refer to 3/A3.2. PT-9: Steel columns
118 HR Reception	Carpet CPT-1	Rubber Cove B-1	Painted gypsum board PT-1: East and West walls, PT-2: angle, South and North end walls.	ACT	
119 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
120 HR Storage	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
121 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
122 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
123 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
124 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
125 HR Badge Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
126 Electrical	VCT 1	Rubber Cove B-2	Painted gypsum board PT-1	ACT	
127 Accessible Restroom	Ceramic Tile CT-1	Rubber Cove B-2, Cove Base CT-3: wet wall only	Painted gypsum board PT-1, Ceramic tile CT-3: wet wall only.	ACT	
128 Break Room	VCT 1	Rubber Cove B-2	Painted gypsum board PT-1	ACT	
129 Data Room	VCT 1	Rubber Cove B-2	Painted gypsum board PT-1	ACT	
130 HR Secure Files	VCT 1	Rubber Cove B-2	Painted gypsum board PT-1	ACT	
131 Electrical	VCT 1	Rubber Cove B-2	Painted gypsum board PT-1	ACT	
132 Hallway	Carpet CPT-1	Rubber Cove B-1	Painted gypsum board PT-1, PT-2: East, West ends, PT-5: North low wall and furr. down	ACT	Refer to 4/A3.2 for furr-down finish
133 Vestibule	Carpet CPT-1	Rubber Cove B-1	Painted gypsum board PT-1, PT-5: West wall	ACT	
134 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
135 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
136 Check Printing	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
137 Waiting Area	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
138 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
139 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
140 Work Station	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
141 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
142 Vestibule	Carpet CPT-1	Rubber Cove B-1	Painted gypsum board PT-1, PT-5: East wall.	ACT	Refer to 4/A3.2
143 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
144 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
145 Storage	VCT 1	Rubber Cove B-2	Painted gypsum board PT-1	ACT	
146 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
147 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
148A Stairs	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1: West wall.	ACT	
148B Stairs	Carpet CPT-2	Rubber Cove	Painted gypsum board PT-1: West wall.		
149A Training/Conference	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1: North, South and West walls, PT-2: East wall	ACT	Refer to 4/A3.2
149B Training Storage	VCT 1	Rubber Cove B-2	Painted gypsum board PT-1	ACT	
150 Account. Office Service	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
151 Account. Secured Storage	VCT 1	Rubber Cove B-2	Painted gypsum board PT-1	ACT	
152 Vestibule	Carpet CPT-1	Rubber Cove B-1	Painted gypsum board PT-1; PT-2: West wall	ACT	
153 Purchasing	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
154 Purchasing	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
155 Purchasing	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
200 Hallway	Carpet CPT-1	Rubber Cove B-1	Painted gypsum board PT-1; PT-2: North and South end walls	ACT	PT-9: New and existing steel handrail
201 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
202 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
203 Restroom	Existing	Existing	Painted gypsum board PT-1	ACT	
204 Storage	VCT 1	Rubber Cove B-2	Painted gypsum board PT-1	ACT	
205 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
206 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
207 Office	Carpet CPT-2	Rubber Cove B-1	Painted gypsum board PT-1	ACT	
001 Hall	VCT 1	Rubber Cove B-2	Painted gypsum board PT-1	ACT	
002, 003, 004 Storage	VCT 1	Rubber Cove B-2	Painted gypsum board PT-1	ACT	
005 Fitness Room	SF-1	Rubber Cove B-2	Painted gypsum board PT-1, PT-2: East wall	ACT	
006 Women's Restroom	Ceramic Tile CT-2	Ceramic tile Cove CT-3	Epoxy paint color PT-6	ACT	PL-4: toilet partitions
007 Women Locker Room	VCT 1	Rubber Cove B-2	Epoxy paint color PT-6	ACT	
008 Women Shower Room	Ceramic Tile CT-2	Ceramic tile Cove CT-3	Ceramic Tile CT-3	ACT	
009 Custodial	VCT 1	Rubber Cove B-2	Epoxy paint color PT-6	ACT	
010 Men's Restroom	Ceramic Tile CT-1	Ceramic tile Cove CT-3	Epoxy paint color PT-6	ACT	PL-4: toilet partitions
011 Men Locker Room	VCT 1	Rubber Cove B-2	Epoxy paint color PT-6	ACT	
012 Men Shower Room	Ceramic Tile CT-1	Ceramic tile Cove CT-3	Ceramic Tile CT-3	ACT	
013 Storage	Existing	Existing	Painted gypsum board PT-1	Existing	Alternate #1: ACT, VCT 2, B-3
014A, 014B, 014C Storage	Concrete	None	Painted gypsum board/cmu, concrete wall PT-1	None	Remove and clean adhesive from existing floor finish.
015, 016, 017 Storage	Concrete	None	PT-9 : Metal jail cell doors		
018 Hallway	VCT-1	Rubber Cove B-2	Painted gypsum board, and cmu wall PT-1	Existing	
019 Elevator Equipment	Existing	Existing	Painted cmu wall PT-1	Existing	
020 Electrical Room	Concrete	None	Painted gypsum board, and cmu wall PT-1	None	
021 Comm./Elect. Pannels	Concrete	None	Painted gypsum board, and cmu wall PT-1	None	
022 Mechanical Room	Concrete	None	Painted gypsum board, and cmu wall PT-1	None	
023 Boiler Room	Concrete	None	Painted gypsum board, and cmu wall PT-1	None	

1 FINISH SCHEDULE

Refer to: 1/A2.1, 1A2.2 — Scale: No scale

PAINT COLORS

PT-1: SW color # 6217 "Topsail" , egg-shell.
PT-2: SW color # 6220 "Interesting Aqua", egg-shell.
PT-3: SW color # 6222 "Riverway" , egg-shell.
PT-4: SW color # 6388 "Golden Fleece" , egg-shell.
PT-5: SW color # 7578 "Borscht" , egg-shell.
PT-6: Epoxy paint SW color # 7021 "Simple White", semi-gloss
PT-7: SW color #7066 "Grey Matters", egg shell
PT-8: SW color #7056 "Reserved White", egg shell
PT-9: SW color #7075 "Web Gray", semi-gloss

VINYL COMPOSITION TILE

VCT-1: Armstrong Excelon Stonetex, color # 52122 "Pebble Gray"
Alternate #1:
VCT-2: Armstrong Excelon Stonetex, color # 52127 "Stone White"

CARPET

CPT-1: J+J Invision, Fuse 3530, color #1456 "Meet"
CPT-2: J+J Invision, Merge 3520, color # 1456 "Meet"

SPORT FLOORING

SF-1: Teraflex 'Multipurpose', 5mm., color #8362 "Chicago"

CERAMIC TILE / GROUT

CT-1: Daltile 'Keystones", 2x2 mosaic, color# D200 "Desert Gray Speckle"
Grout: Custom Building Products, color #115 Platinum"
CT-2: Daltile 'Keystones", 2x2 mosaic, color# D037 "Pepper White"
Grout: Custom Building Products, color # 381 "Bright White"
CT-3: Daltile 'Matte" Group I, 4x4 tile, color# 0799 "Pearl White"
Grout: Custom Building Products, color # 381 "Bright White"

PLASTIC LAMINATE

PL-1: Wilsonart Laminate, color # 7909-60 "Fusion Maple"
PL-2: Wilsonart Laminate, color # 4882-38 "Oiled Soapstone"
PL-3: Wilsonart Laminate, color # 10745-60 "Fonthill Pear"
PL-4: Wilsonart Laminate, color # 4877-38 "Grey Mesh"

BASE

B-1: ROPPE, 3" Rubber cove, color # 123 "Charcoal"
B-2: ROPPE, 3" Rubber cove, color # 174 "Smoke"
Alternate #1:
B-3: ROPPE, 3" Rubber cove, color #161 "Snow"

COLORED CEMENT PLASTER

CCP-1: BASF Senergy, color #605 "Bluet"
Alternate #2:
CCP-2: BASF Senergy, color to be selected from manufacturer's standard color chart

Notes:
1. All ceiling tiles Type 1 unless noted otherwise
2. Paint all existing metal door frames PT-9
3. SW = Sherwin-Williams Paint

The Arkitex Studio, Inc.
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LICENSED ARCHITECT 16378 STATE OF TEXAS
04/06/10

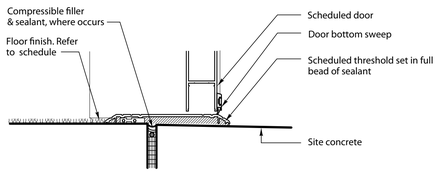
Renovation of the Bryan City Hall Annex
Owner: City of Bryan, P.O. Box 1000, Bryan, Texas 77805

Revisions

Number	Date

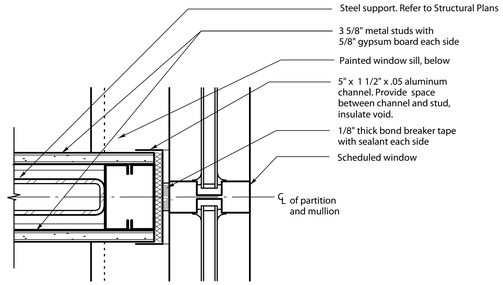
Project 0918
April 6, 2010

A5.1



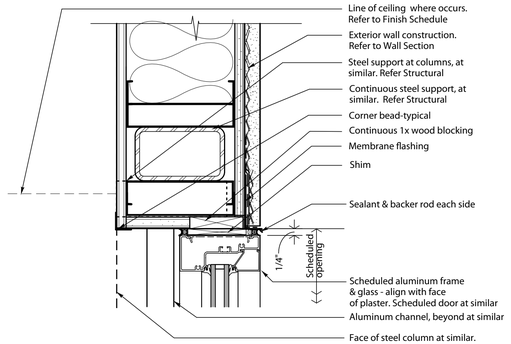
12 ENTRY DOOR DETAIL

Refer to: 1/A5.2 Scale: 3"=1'-0"



11 OPENING JAMB DETAIL

Refer to: 1/A2.1, 1/A5.2 Scale: 3"= 1'-0"



10 OPENING HEAD DETAIL

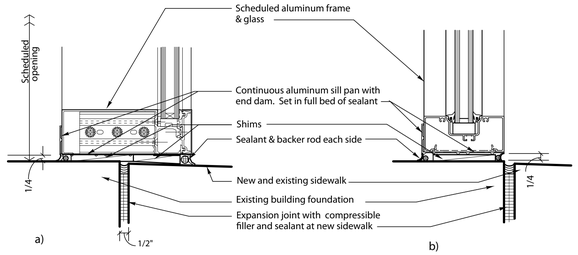
Refer to: 1/A5.2, 1/A6.1 Scale: 3"= 1'-0"

9 OPENING JAMB

Refer to 1/A5.2 Scale: 3"=1'-0"

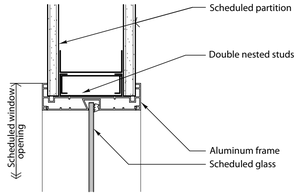
8 WINDOW SILL

Refer to 1/A5.2 Scale: 3"=1'-0"



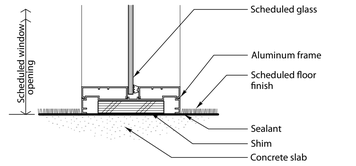
7 OPENING SILL

Refer to: 1/A5.2, 7/A6.1 Scale: 3"=1'-0"



6 WINDOW HEAD

Refer to 1/A5.2 Scale: 3"=1'-0"

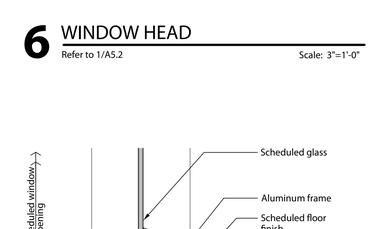


5 WINDOW SILL

Refer to 1/A5.2 Scale: 3"=1'-0"

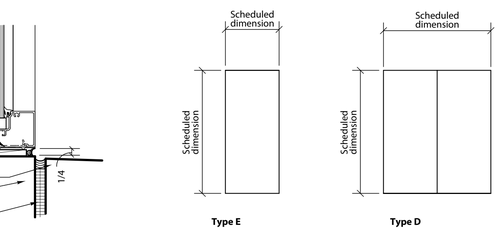
4 DOOR HEAD

Refer to 1/A5.2 Scale: 3"=1'-0"



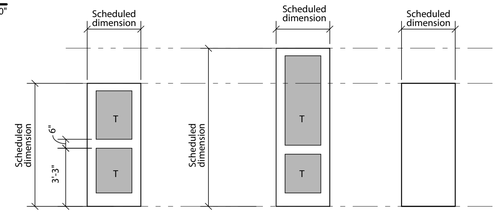
3 INTERIOR DOOR/ WINDOW JAMB

Refer 1/A5.2 Scale: 3"=1'-0"



Type E
Galvanized, painted
hollow metal door

Type D
1 3/4" thick, solid core plastic
laminate clad wood door



Type C
Medium stile, clear anodized
interior aluminum door with 1/4"
clear tempered glass (equal to
Raco Series 550 Entrance door)

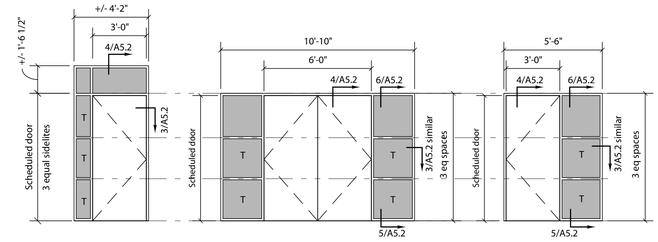
Type B
Wide stile, clear anodized
aluminum door with 1" insulated
solar gray tempered glass

Type A
1 3/4" thick, solid core plastic
laminate clad wood door

NOTES:
- All permanent rooms shall be designated by signage complying with State Accessibility Standards. Refer to Specifications for requirements, sign text, and locations.
- PL-3 finish for all plastic laminate clad wood doors, unless noted otherwise

2 DOOR TYPES

Refer to: Door schedule Scale: 1/4"=1'-0"

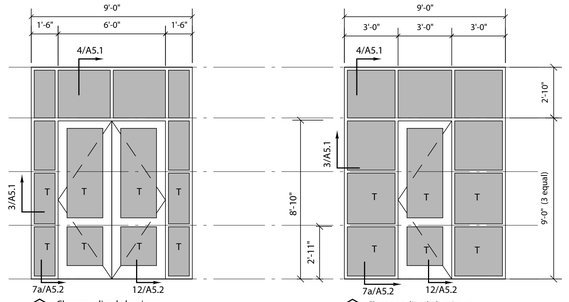


8 Clear anodized interior aluminum framing with 1/4" clear glass.

7 Clear anodized aluminum framing with 1/4" clear glass

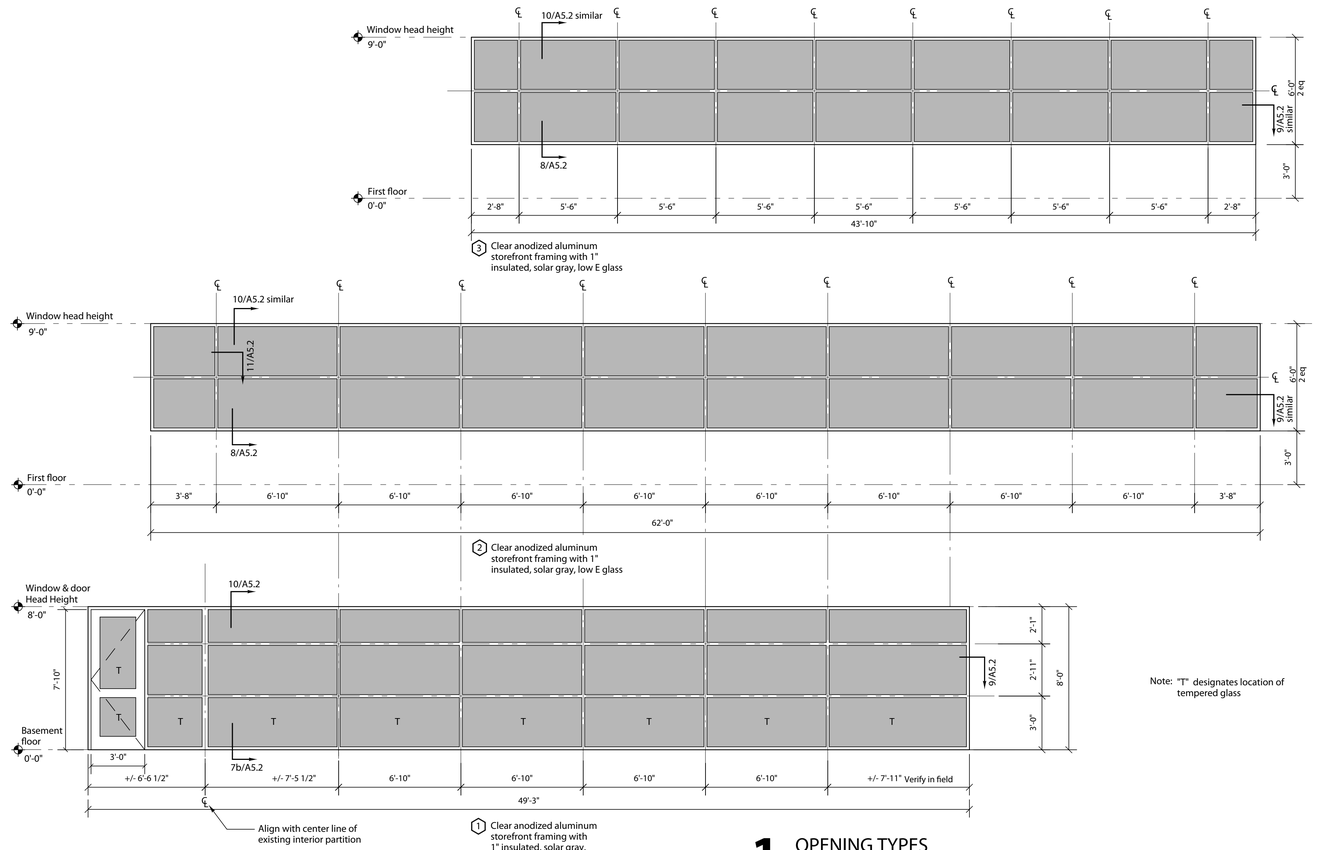
6 Clear anodized interior aluminum framing with 1/4" clear glass

Verify all dimensions in field



5 Clear anodized aluminum curtain wall with 1" insulated, solar gray, low E glass

4 Clear anodized aluminum curtain wall with 1" insulated, solar gray, low E glass



3 Clear anodized aluminum storefront framing with 1" insulated, solar gray, low E glass

2 Clear anodized aluminum storefront framing with 1" insulated, solar gray, low E glass

1 Clear anodized aluminum storefront framing with 1" insulated, solar gray, low E glass

Note: "T" designates location of tempered glass

1 OPENING TYPES

Refer to: 1/A2.1, 1/A2.2 Scale: 1/4"=1'-0"

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LICENSED ARCHITECT 16378 STATE OF TEXAS

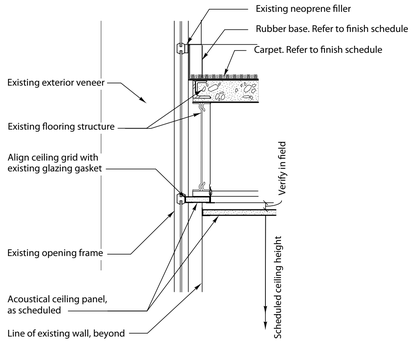
04/06/10

Renovation of the
Bryan City Hall Annex
Owner: City of Bryan, P.O. Box 1000, Bryan, Texas 77805

Revisions	
Number	Date

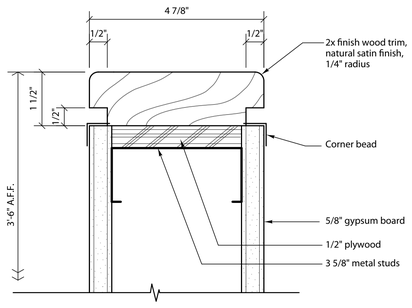
Project 0918
April 6, 2010

A5.2



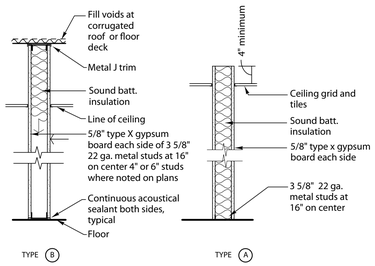
11 DETAIL AT CEILING UNDER MEZZANINE

Refer to: 1/A8.1 — 1 1/2"=1'-0"



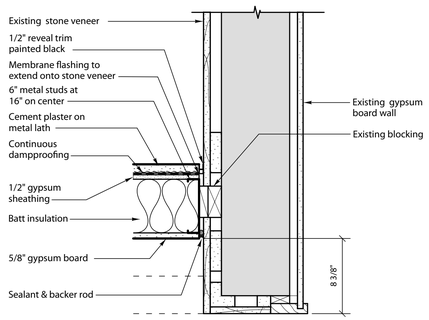
10 WOOD CAP DETAIL

Refer to: 1/A2.1 — 6"=1'-0"



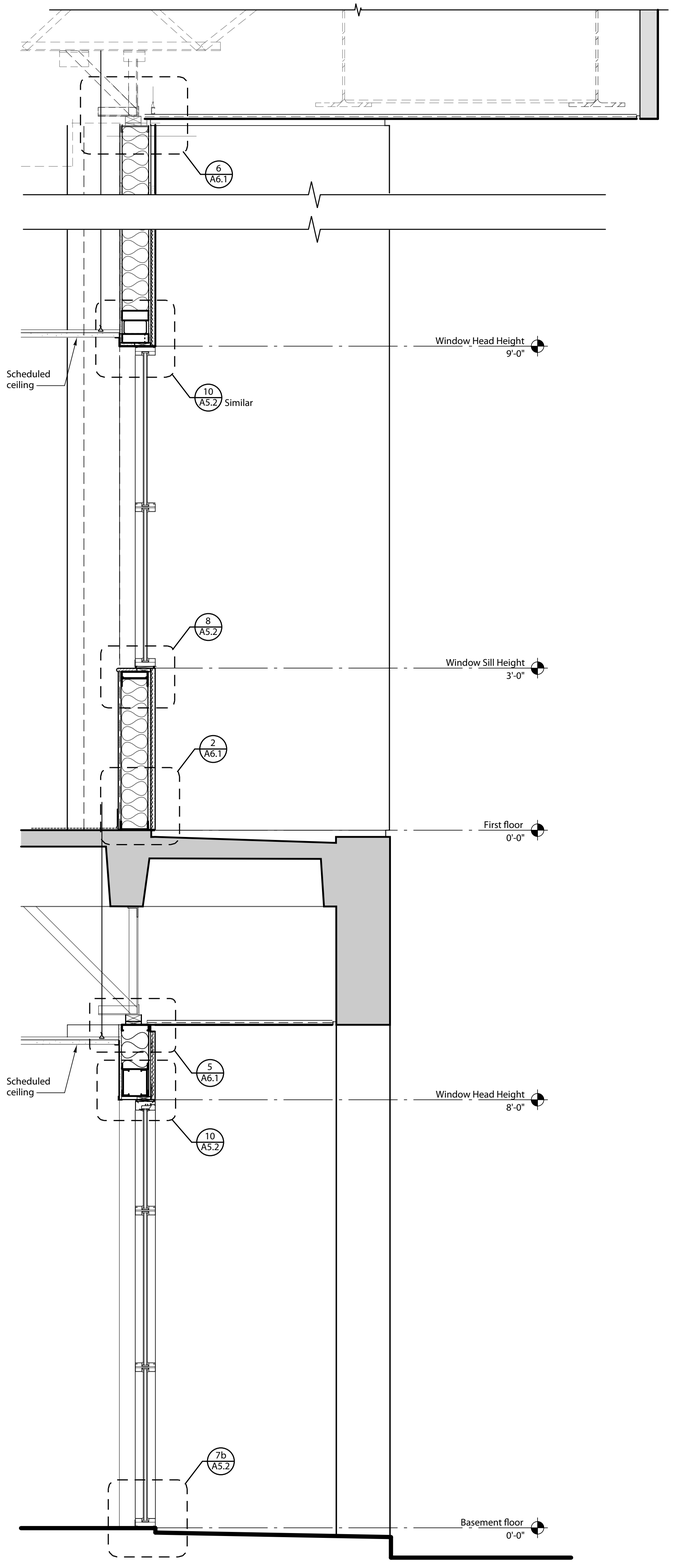
9 PARTITION TYPES

Refer to: 1/A2.1, 1/A2.2 — Not to scale



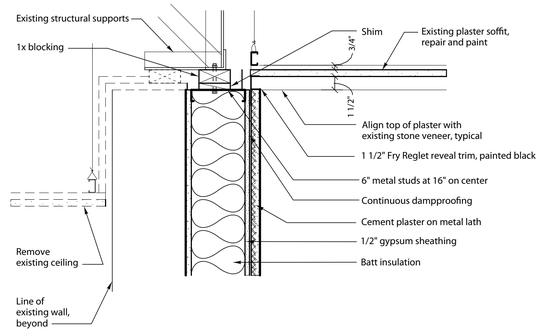
8 PLAN DETAIL

Refer to: 1/A2.1 — Scale: 1 1/2"= 1'-0"



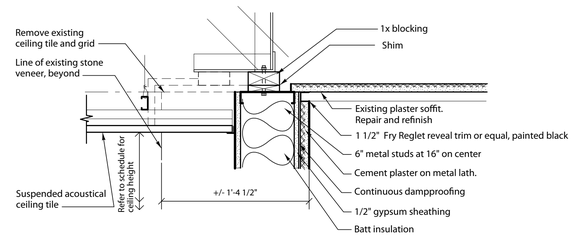
7 WALL SECTION

Refer to: 1/A3.2, 1/A2.1, 1/A2.2 — Scale: 3/4"= 1'-0"



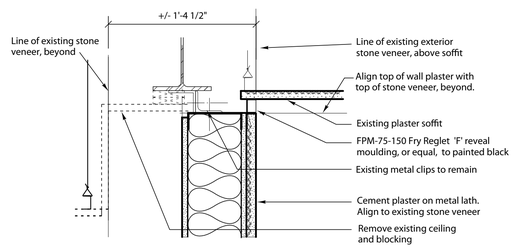
6 WALL SECTION DETAIL

Refer to 7/A6.1 — Scale: 1 1/2"= 1'-0"



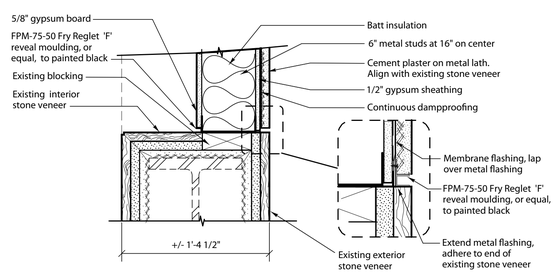
5 WALL SECTION DETAIL (BASEMENT)

Refer to: 7/A6.1 — Scale: 1 1/2"= 1'-0"



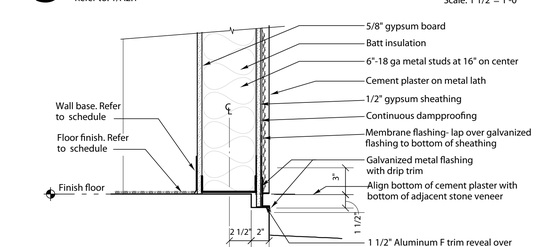
4 WALL SECTION DETAIL

Refer to: 1/A6.1 — Scale: 1 1/2"= 1'-0"



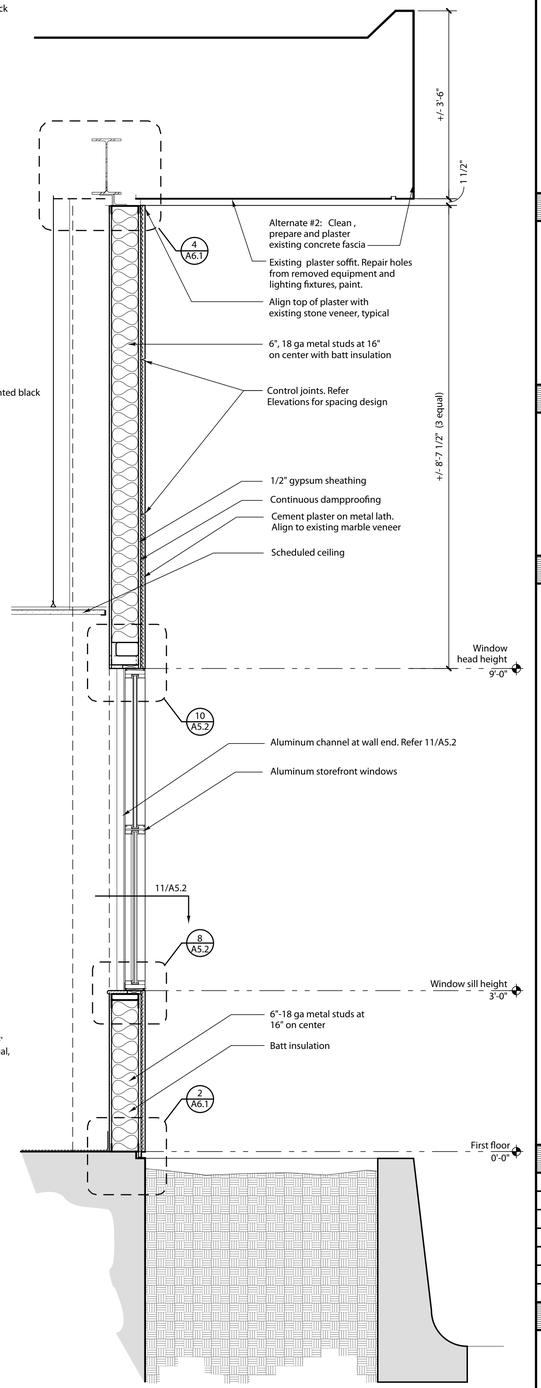
3 PLAN DETAIL

Refer to: 1/A2.1 — Scale: 1 1/2"= 1'-0"



2 WALL SECTION DETAIL

Refer to: 1/A6.1 — Scale: 1 1/2"= 1'-0"



1 WALL SECTION

Refer to: 4/A3.2, 1/A2.1 — Scale: 3/4"=1'-0"

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Renovation of the
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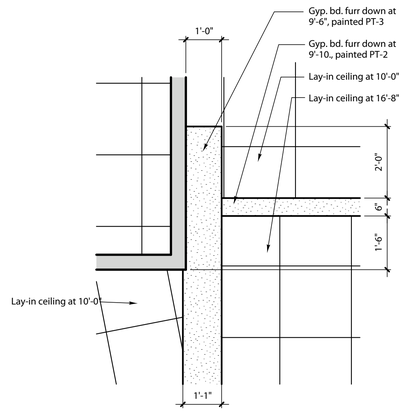
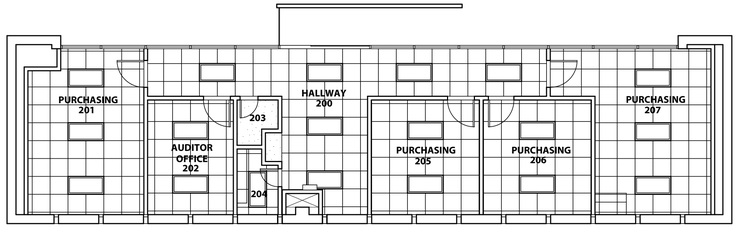
A6.1



3 ENLARGED CEILING PLAN

Refer to: 1/A8.1 Scale: 1/2"=1'-0"



NOTE: All ceiling heights are to match existing at 8'-6" A.F.F., typical, unless noted othewise.

2 MEZZANINE REFLECTED CEILING PLAN

Refer to: 1/A2.2 Scale: 1/8"=1'-0"

LEGEND OF SYMBOLS

- 2x4 fluorescent fixture
- 1x4 fluorescent fixture
- 1x4 surface mounted fluorescent fixture
- Recessed fixture
- Pendant fixture

NOTES:
- All ceiling heights are 9'-2" A.F.F., typical, unless noted othewise.

- Repair plaster soffit at all removed lights and security cameras, and conduit.

Plan North

1 FIRST FLOOR REFLECTED CEILING PLAN

Refer to: 1/A2.1 Scale: 1/8"=1'-0"

0' 4' 8' 2' 6' 10'

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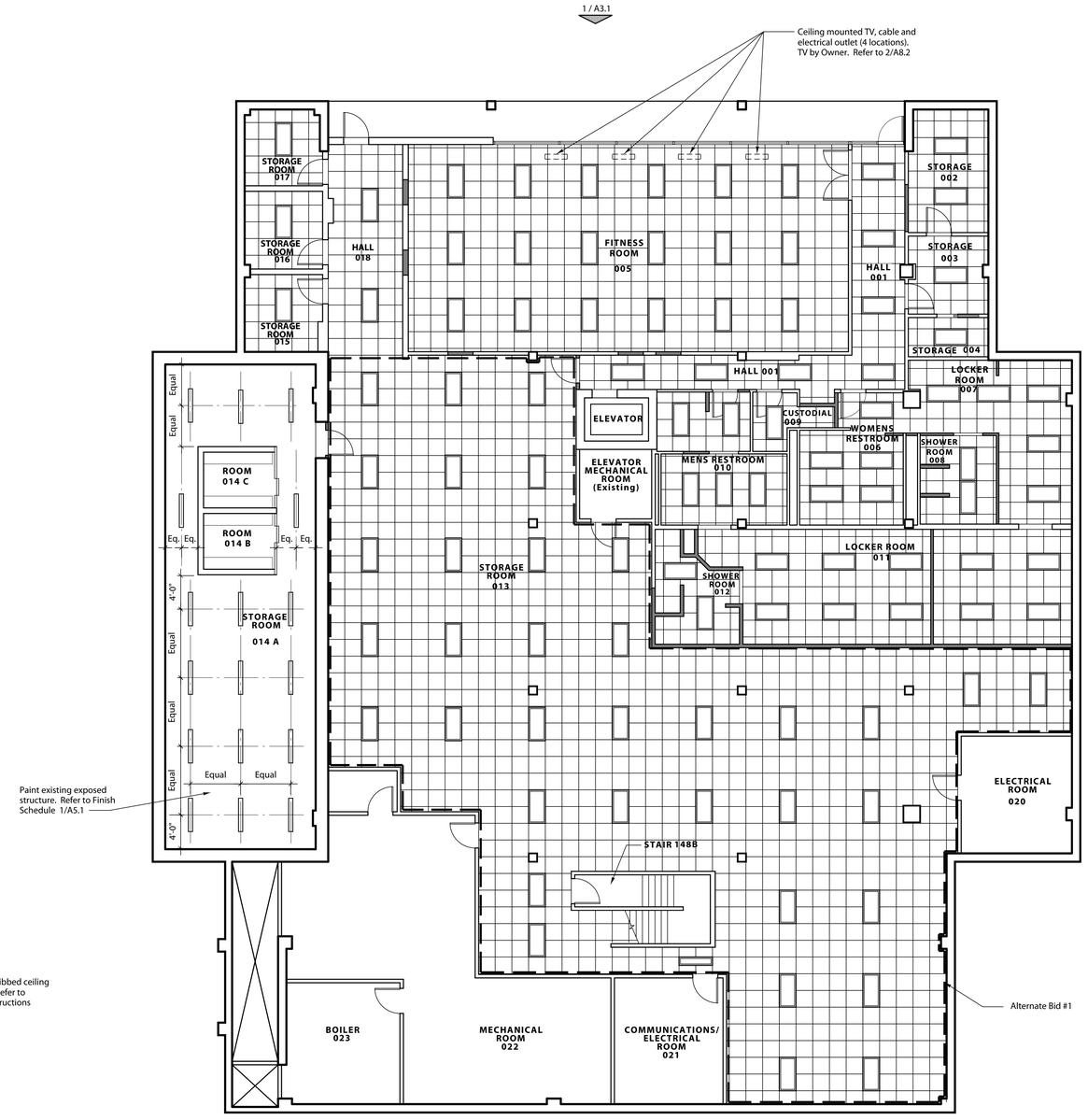

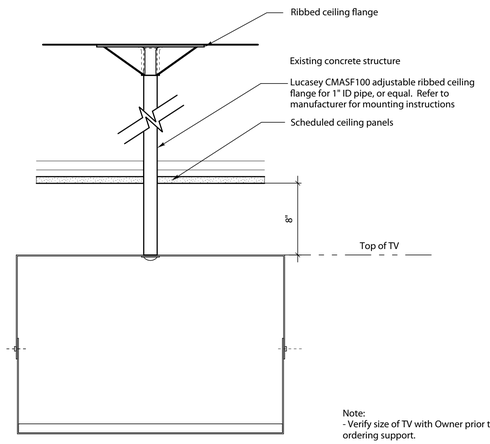

Note:
- Verify size of TV with Owner prior to ordering support.

2 ADJUSTABLE CEILING MOUNT

Refer to: 1/A1.1 Scale: 1/8"=1'-0"

NOTE:
- All basement suspended acoustical ceiling tile height to be 9'-0" above finish floor.

0' 4' 8'
2' 6' 10'

Plan North

1 BASEMENT REFLECTED CEILING PLAN

Refer to: 1/A2.2 Scale: 1/8"=1'-0"

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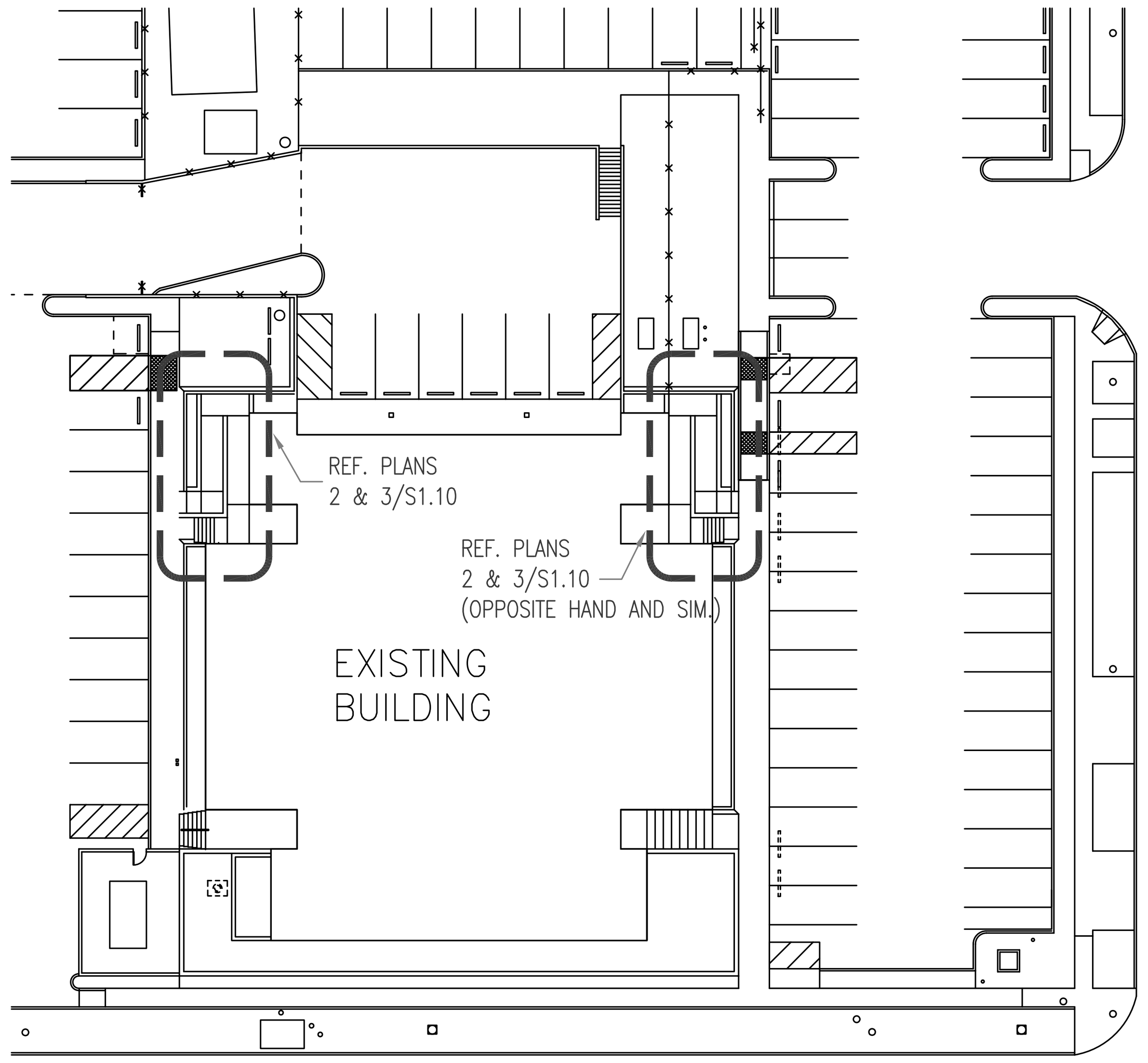
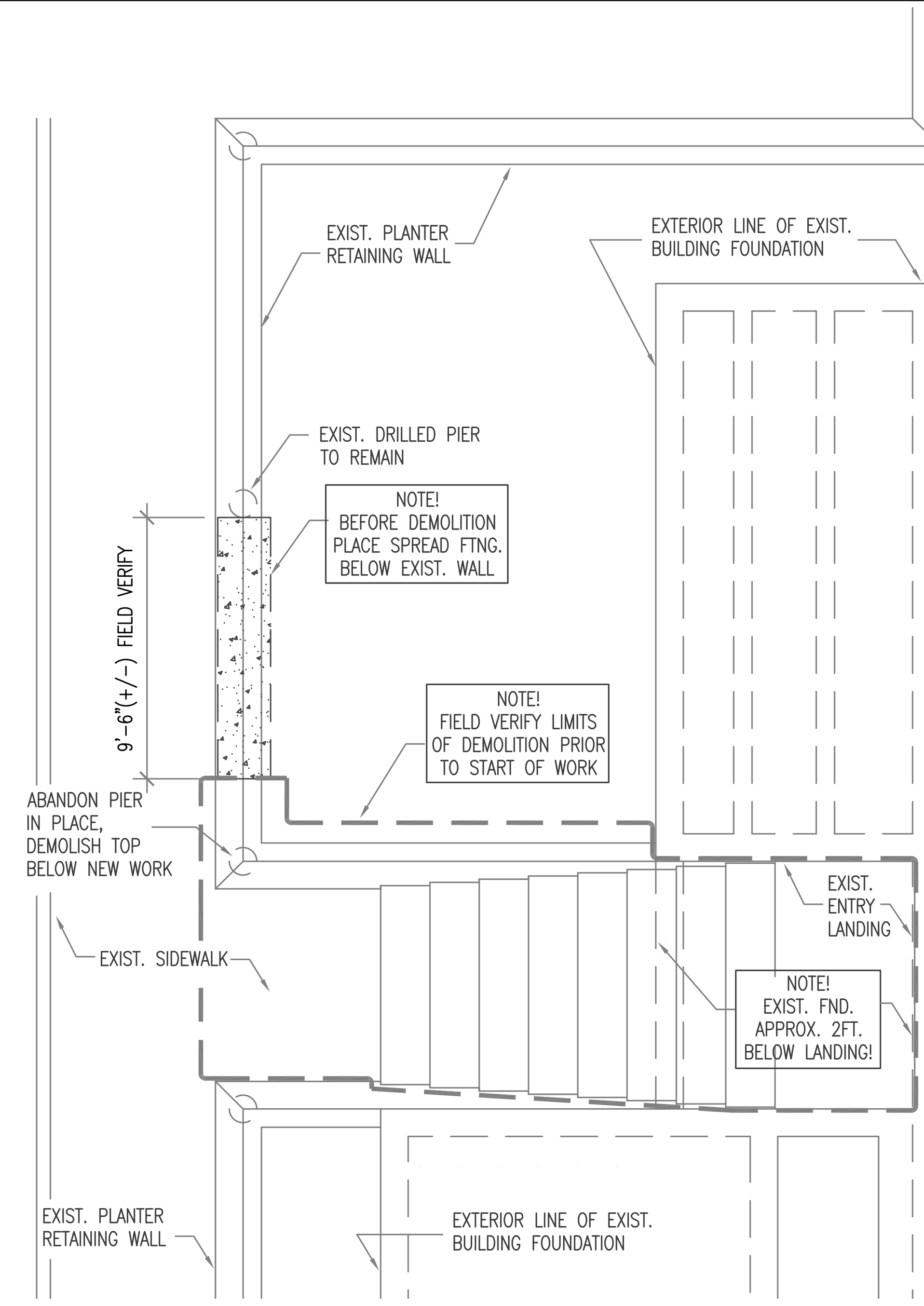
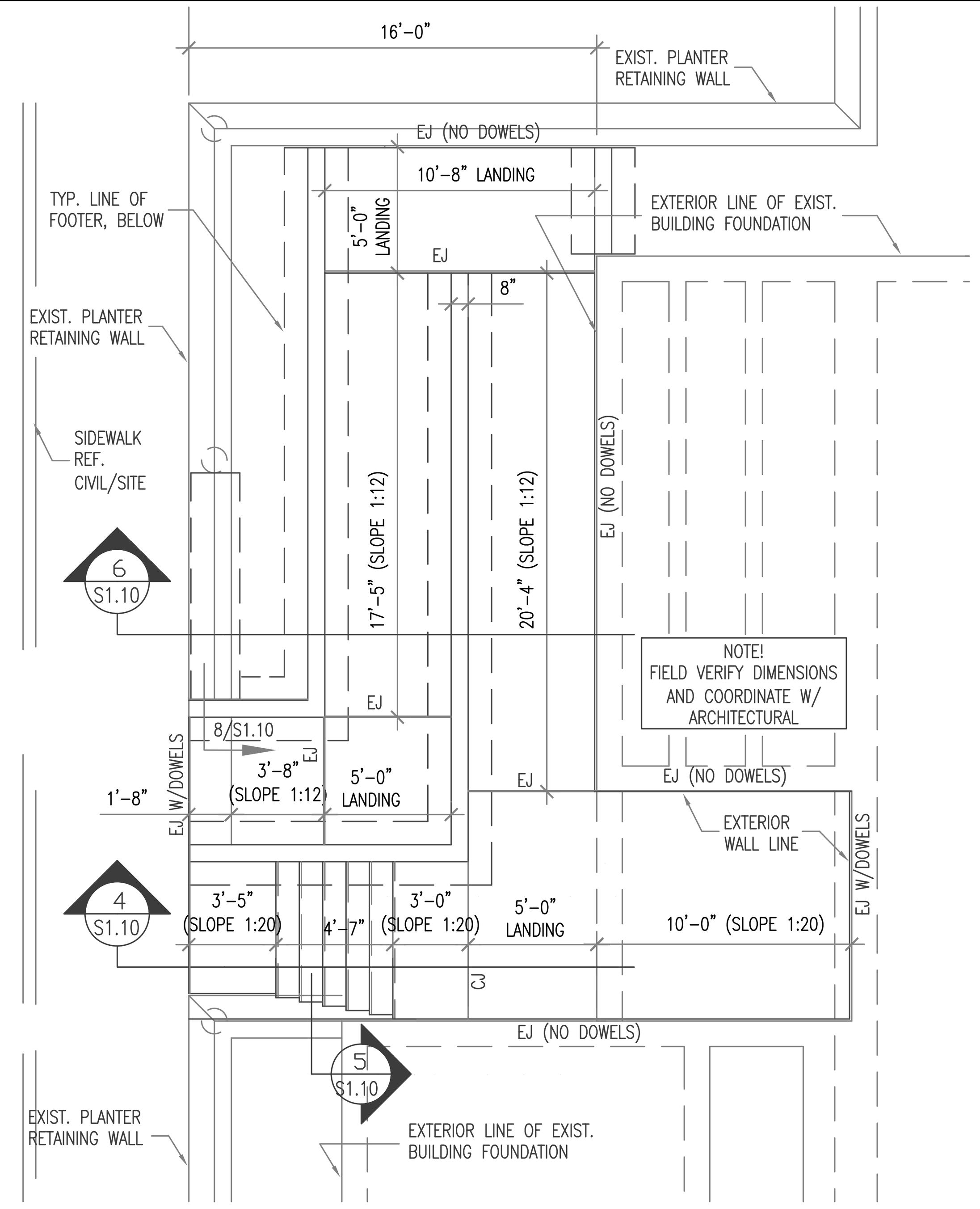


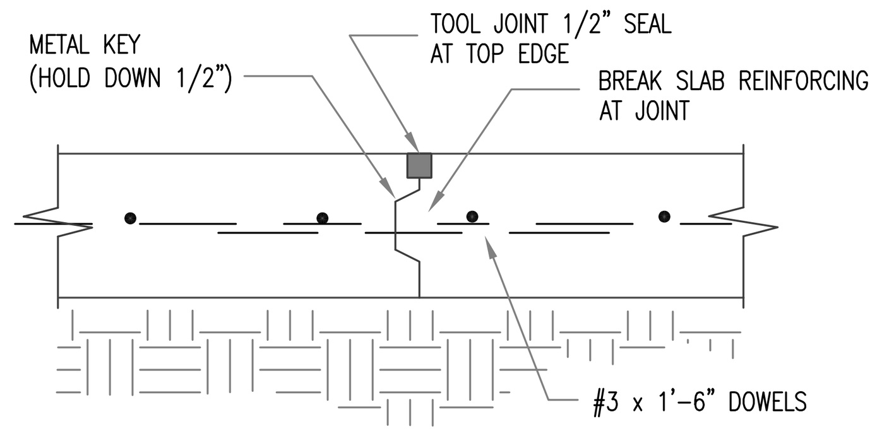
FOUNDATION KEY PLAN NO SCALE 01



DEMOLITION PLAN 3/16"=1'-0" 02



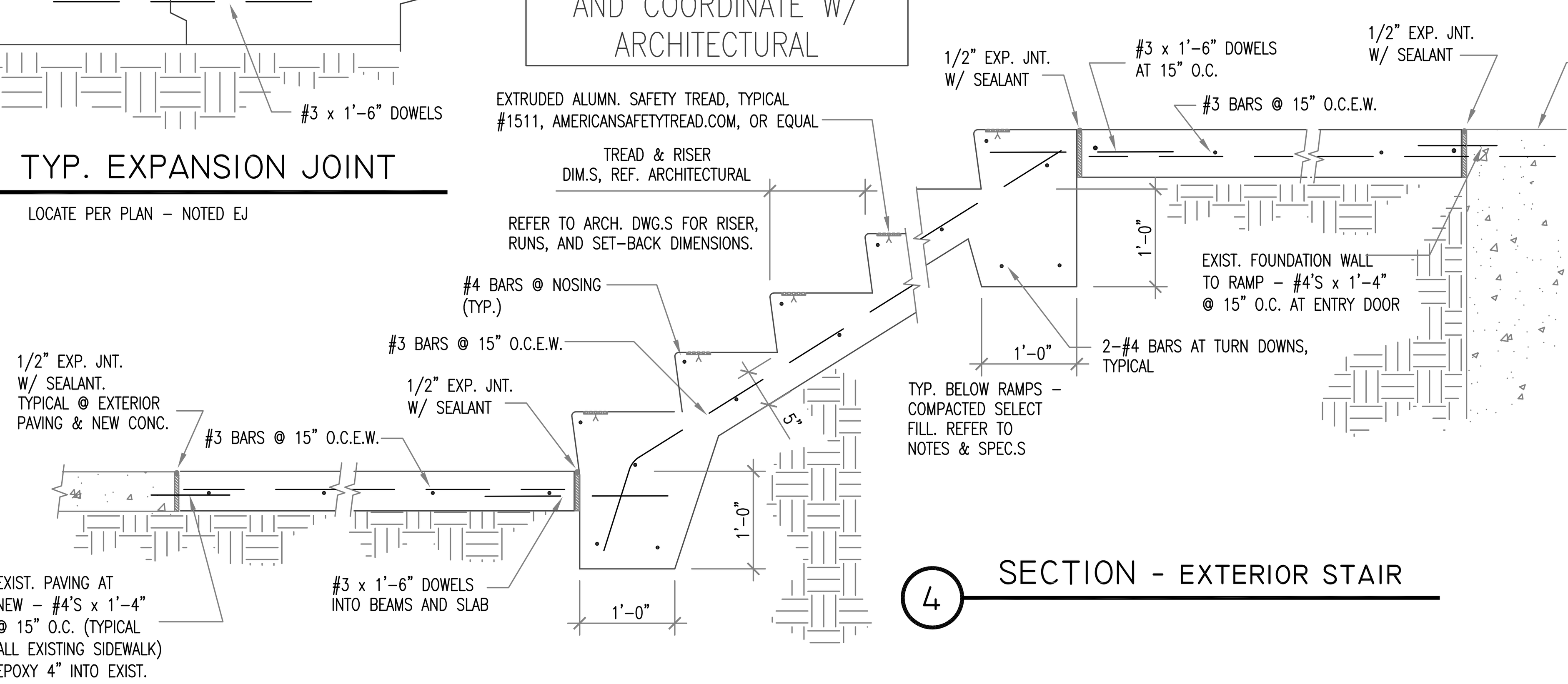
FOUNDATION PLAN 3/16"=1'-0" 03



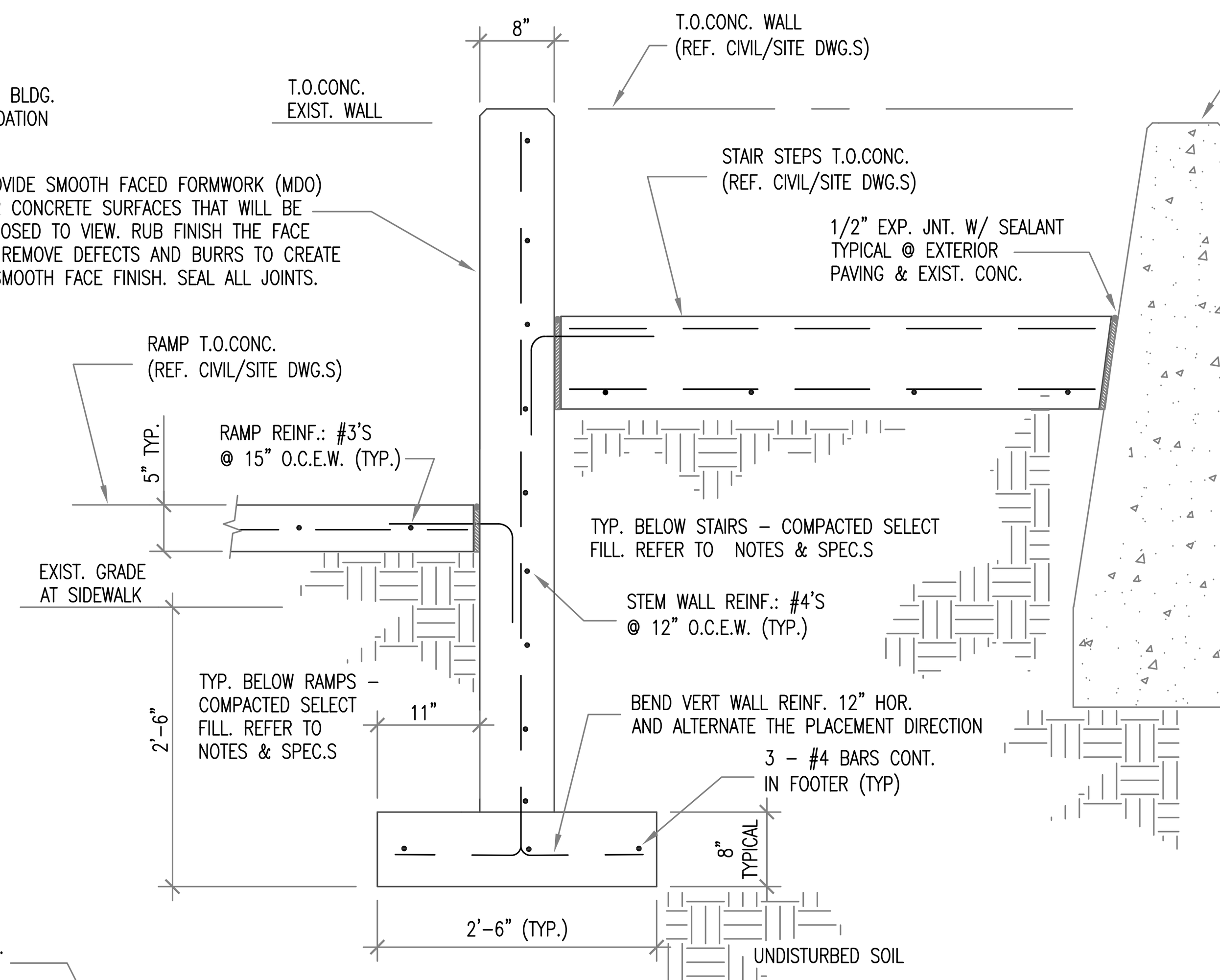
9 TYP. EXPANSION JOINT

LOCATE PER PLAN – NOTED EJ

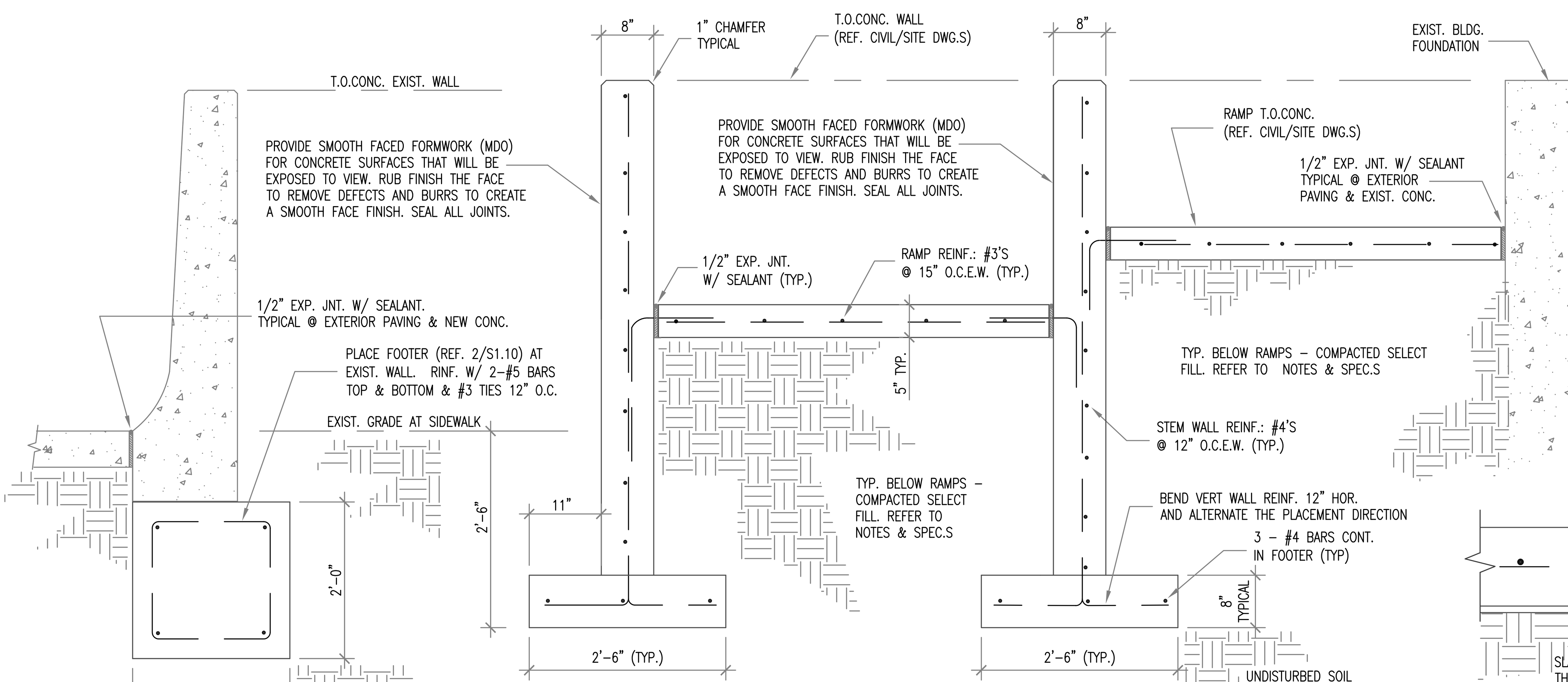
NOTE!
FIELD VERIFY DIMENSIONS
AND COORDINATE W/
ARCHITECTURAL



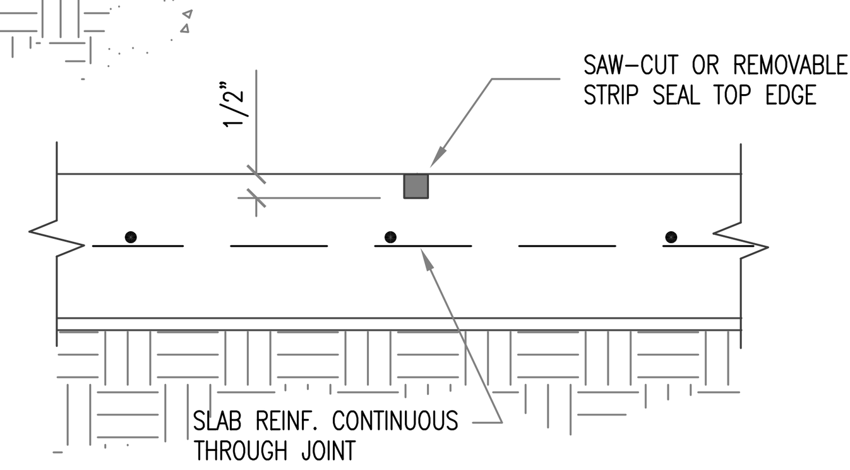
4 SECTION – EXTERIOR STAIR



5 SECTION – STAIRS

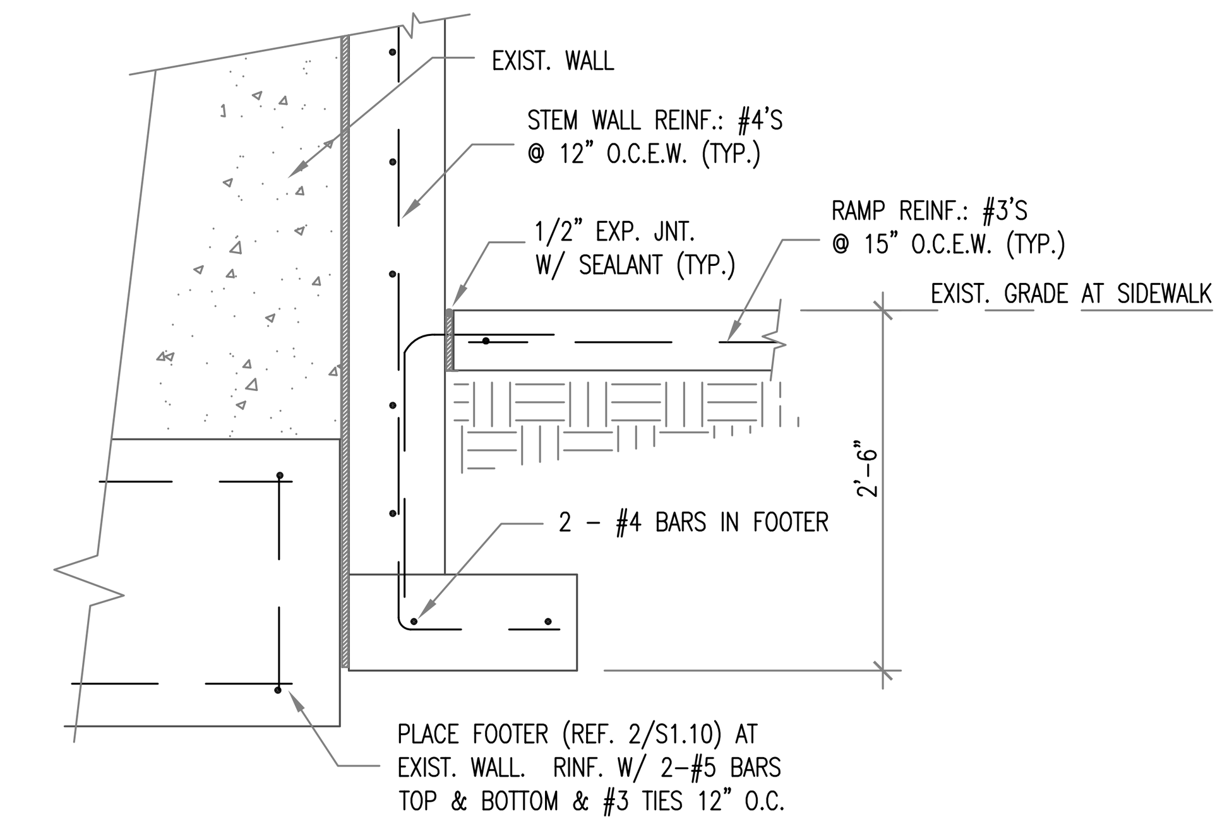


6 SECTION – ACCESSIBLE RAMP



7 TYP. CONTROL JOINT

LOCATE AT 5'-0" MAXIMUM SPACING



8 SECTION – FOOTER

NOTES AND SPECIFICATIONS

General

1. The contractor is responsible for verifying all dimensions and conditions before proceeding with the work. Report any discrepancies or variations from the drawings to the engineer for any revisions that may be required. Refer to architectural drawings for floor elevations, slopes, depressed floor areas, finishes, embedded items, and miscellaneous steel framing.

2. Principal openings in the structural frame are shown on the drawings. The mechanical contractor shall sleeve for openings such as pipe risers, etc. Any openings not shown on the drawings that require sleeving of beams shall be referred to the structural engineer for any revisions that may be required. Location and size of openings, curbs, pads, etc. shown on the structural drawings shall be verified with the mechanical drawings and the mechanical contractor. See manufacturer's drawings for all equipment anchorages and details.

Foundation and Subgrade

1. Demolish and remove existing concrete slabs and footings down to undisturbed natural ground. At landscaped areas remove surface vegetation, roots and organic materials to a depth of 12" and dispose. Cut and remove the existing soils to the bottom of the proposed footings. Use select fill soils as necessary to build up to the required bearing subgrade depth.

2. Select fill soil shall meet the requirements contained in the Texas Department of Transportation 2004 Standard Specifications, Item 247, Type A, Grade 4 or better. The plasticity index shall be between 8 and 18. Fill materials shall be placed in maximum 6 inch lifts, moistened to –0% optimum moisture content to +3%, and compacted to 95 percent of maximum density as determined by ASTM D698.

Cast in Place Concrete

1. All concrete work shall be in accordance with the Building Code Requirements for Reinforced Concrete, ACI 318–2002.

2. All grade beam and slab concrete shall be normal weight (sand and gravel aggregate) with a minimum 28 day compressive strength of 3,000 psi. Concrete mix shall contain a minimum 325 pounds of cement per cubic yard plus fly ash (20% maximum by weight), or 372 pounds of cement per cubic yard if no fly ash is used. Concrete exposed to the exterior environment must contain 3% to 5% entrained air per ACI recommendations.

3. No horizontal joints will be permitted in concrete work except as shown on the drawings. Any stop in concrete placement will be made with vertical bulkheads incorporating a shear key at centers of spans. Locations for stop points shall be approved by the structural engineer prior to placement.

4. Formwork design is the responsibility of the contractor and shall not be removed until the concrete has gained sufficient strength to carry its own weight plus applied construction loads.

5. Provide concrete control joints at maximum 5 feet on center each direction. Joints shall be sawcut, hand tooled, or of removable strip type. Contractor shall locate in field if not specifically located on plans.

6. Concrete placement shall be accomplished by direct chute from the mixer truck, crane and bucket, or by pumping to its final point of deposit. Concrete shall not be drug by hand more than 5 feet.

Reinforcing Steel

1. All reinforcing steel shall be new billet deformed bars conforming to ASTM A615, Grade 60, except #3 bars which are bent (such as stirrups, ties, or dowels) may be Grade 40. All reinforcing shall be clean and free of mill scale and rust.

2. Detailing and fabrication of reinforcing bars shall be in accordance with the Manual of Standard Practice, ACI 315. Unless shown otherwise, lap continuous bars 40 bar diameters at splices, 15 inches minimum.

3. Reinforcing bars may not be welded without approval of the structural engineer.

4. All top reinforcement shall have corner bars placed with them that extend into adjacent beams.

5. Provide necessary ties and bar supports as required by the Manual of Standard Practice, ACI 315. Brick, rock, or masonry blocks are not acceptable supports. Chairs and bolsters for application directly over earth, poly sheets, or felts shall be equipped with bottom bearing plates.

6. Concrete coverage for the reinforcing steel shall comply with the 2002 ACI Code, except where specifically stated otherwise.

7. Where the geometric configurations of or penetrations through slabs form inside corners, provide diagonal reinforcing across these corners. Except where shown otherwise, this reinforcing shall be 3–#4 bars x 4'–0" long @ 4" on center at each such corner, placed 1–1/2" below the top surface of the slab.

8. All expansion joints shall be filled with closed cell polyethylene foam joint filler, unless specifically noted or shown otherwise. All exposed expansion joints shall be sealed with paving joint sealant.

Design Loads

1. The foundation has been designed according to the requirements of the International Building Code.

   Design Wind Speed = 90 mph 3 second gust.
   Importance Factor 1.0, Exposure B, Low Rise/Enclosed

   Earthquake Seismic Constants – Seismic Category A
   Seismic Use Group II, Importance Factor 1.0

2. The foundation has been designed for the following live loads:

   Stairs and Exits = 100 psf uniform or 300 Lbs on an area of 4 sq. in.

   Handrails and Guardrails = 50 plf uniform or 200 lb concentrated – either in any direction

3. Footing design is based upon an allowable bearing pressure of 1,500 psf for dead plus sustained loads.

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SUITE 2900
COLLEGE STATION
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TX FIRM REG. NO. F-503

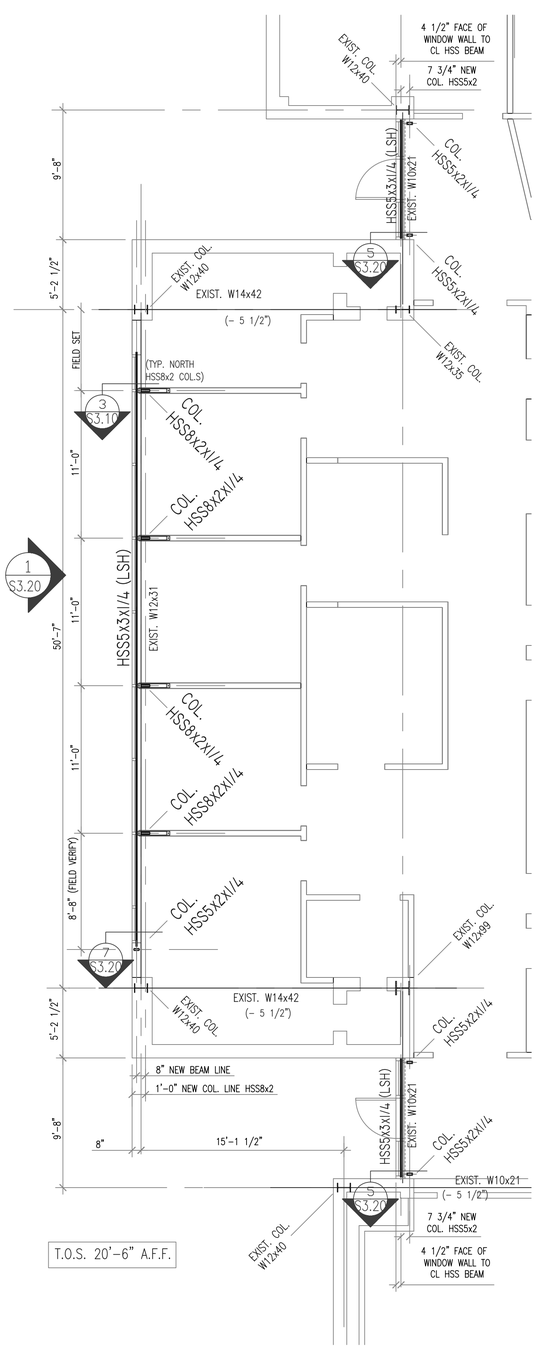
R. G. ROBERTSON 4/5/2010 BRYAN CITY HALL ANNEX

Renovation of the
Bryan City Hall Annex
City of Bryan, P.O. Box 1000, Bryan, TX, 77805

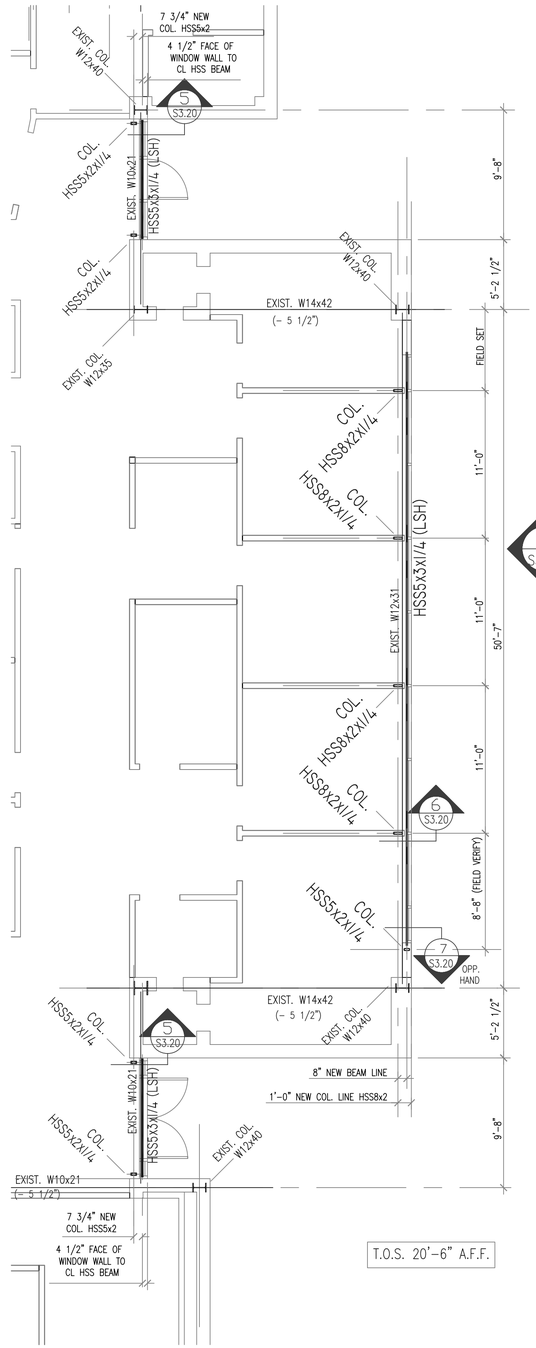
REVISIONS	
NUMBER	DATE

PROJECT NO. 0918
DATE APRIL 5, 2010

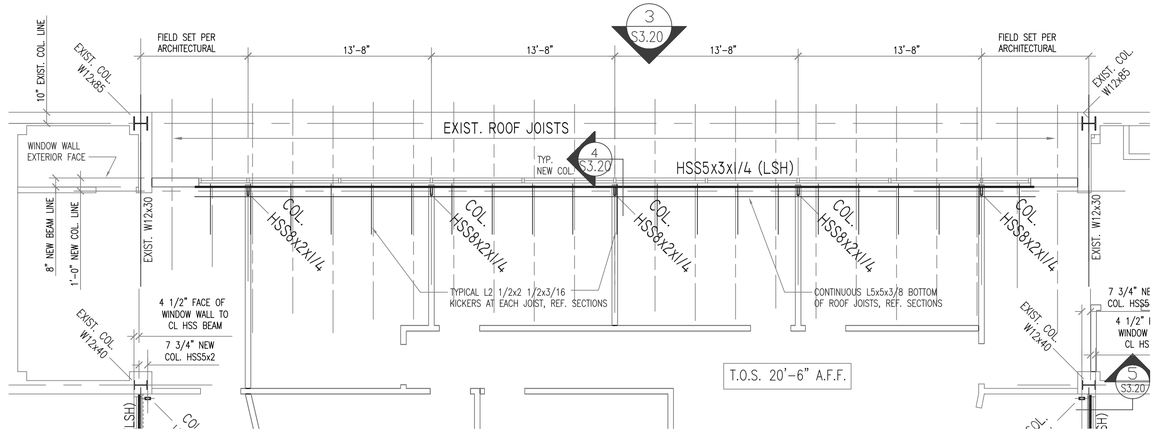
S1.10
OF 3



FRAMING PLAN – PARTIAL, NORTH 3/16" = 1'-0" 01



FRAMING PLAN – PARTIAL, SOUTH 3/16" = 1'-0" 02



FRAMING PLAN – PARTIAL, EAST 3/16" = 1'-0" 02

NOTES AND SPECIFICATIONS

General

1. The contractor is responsible for verifying all dimensions and conditions before proceeding with the work. Report any discrepancies or variations from the drawings to the engineer for any revisions that may be required. Refer to architectural drawings for floor elevations, slopes, depressed floor areas, finishes, embedded items, and miscellaneous steel framing.

2. Principal openings in the structural frame are shown on the drawings. The mechanical contractor shall sleeve for openings such as pipe risers, etc. Any openings not shown on the drawings that require sleeving of beams shall be referred to the structural engineer for any revisions that may be required. Location and size of openings, curbs, pads, etc. shown on the structural drawings shall be verified with the mechanical drawings and the mechanical contractor. See manufacturer's drawings for all equipment anchorages and details.

Structural Steel

1. Design, fabrication, and erection of structural steel shall be in accordance with AISC Specifications, latest edition. All cold rolled structural shapes shall meet the requirements of the AISI, latest edition.

2. All structural W shapes shall conform to ASTM A992, GRADE 50 minimum. All other shapes and plates shall conform to ASTM A36 material. Structural tubing shall conform to ASTM A500 and have a minimum yield point of 46 KSI. Structural pipe shall conform to ASTM A53.

3. Unless shown otherwise, connections shall be shop welded and field bolted and shall be in accordance with the standards of the AISC. Bolts, including anchor bolts, shall be ASTM A307 or ASTM A325 as required by the specific connection detail.

4. Splicing of structural steel members is prohibited without prior review by the structural engineer as to type and location of splice. Splices shall be detailed on the shop drawings.

5. Burning and/or torch cutting of holes in members is expressly prohibited.

6. All welds shall be made with A-233 Class E-70 Series electrode or by submerged arc welding S.A.W. 2 in accordance with the Structural Welding Code AWS D1.1.

7. All structural steel shall be shop painted with a rust inhibiting primer to a 2 mil dry film thickness. Exclude paint from areas within 2 inches of field welded connections. Field touch-up painting shall be accomplished on those areas when welding operations are complete.

8. Provide temporary bracing for accurate plumbing, and to resist all wind and construction loads. Contractor shall maintain temporary bracing until all permanent lateral bracing (including diagonal bracing, moment connections, and/or walls) are installed and approved.

9. All openings through roof and floor decks are shown. Openings of 6" or less require no additional framing. Openings larger than 6" shall be framed with L4x4x1/4" or as shown on Drawings. Additional openings shall be with the Architect's approval.

10. Provide the following angle lintels for openings in solid brick masonry, one each face for concrete block, unless superseded by specific details on the drawings:

Clear Opening	Lintel Angle
up to 4 ft.	3-1/2 x 3-1/2 x 1/4
4 ft. – 6 ft.	4 x 3-1/2 x 3/8
6 ft. – 8 ft.	5 x 3-1/2 x 3/8
8 ft. – 10 ft.	6 x 3-1/2 x 3/8
10 ft. – 12 ft.	BENT PL 8 x 3 1/2 x 3/8

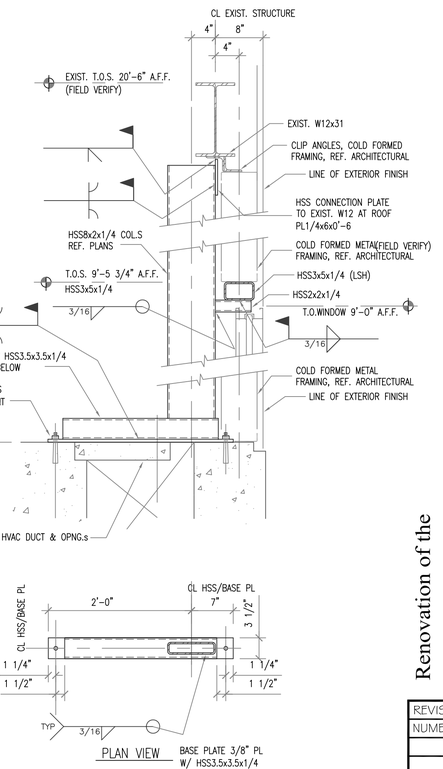
11. Refer to architectural drawings for miscellaneous steel framing.

Design Loads

1. The framing has been designed according to the requirements of the International Building Code. Design Wind Speed = 90 mph 3 second gust. Importance Factor 1.0, Exposure B, Low Rise/Enclosed Earthquake Seismic Constants – Seismic Category A, Seismic Use Group II, Importance Factor 1.0.

2. The structure has been designed for the following live loads:
Roof = 20 psf,
Stairs and Exits = 100 psf uniform or 300 Lbs on an area of 4 sq. in.
Handrails and Guardrails = 50 plf uniform or 200 lb concentrated – either in any direction.

3. The existing first floor shall not be subjected to a uniform load that exceeds 100 psf or a concentrated load that exceeds 1000 pounds over an area of 20 square inches.



3 DETAIL - NEW COLUMN

The Arkitex Studio, Inc.
308 N. Bryan Ave.
Bryan, TX 77803
P (979)821-2635
F (979)775-8224
www.arkitex.com

ROBERTSON
CONSULTING ENGINEERS
2700 EARL RUDDER S.
SUITE 2900
COLLEGE STATION
TEXAS 77845
(979) 820-2168
TX FIRM REG. NO. F-503

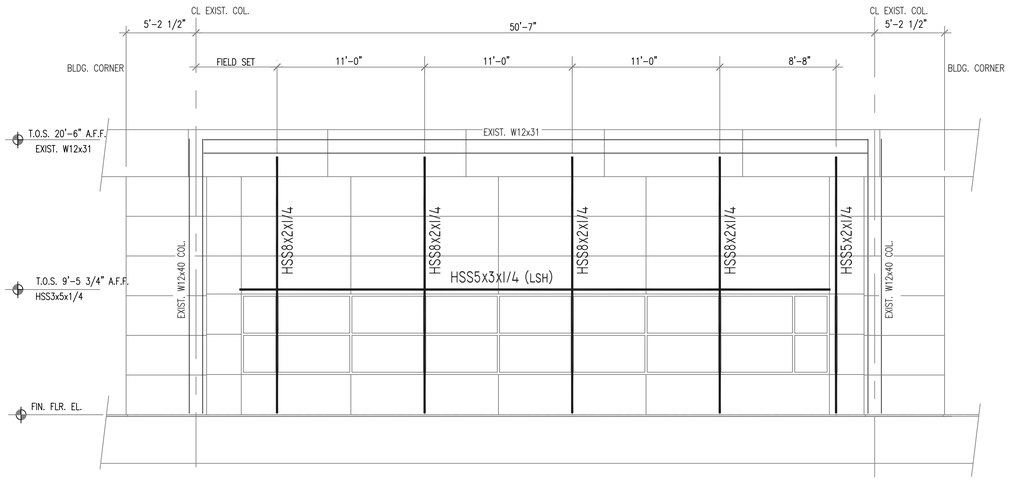
4/5/2010
R. G. ROBERTSON
REGISTERED
PROFESSIONAL
ENGINEER
STATE OF TEXAS

Renovation of the
Bryan City Hall Annex
City of Bryan, P.O. Box 1000, Bryan, TX, 77805

REVISIONS	
NUMBER	DATE

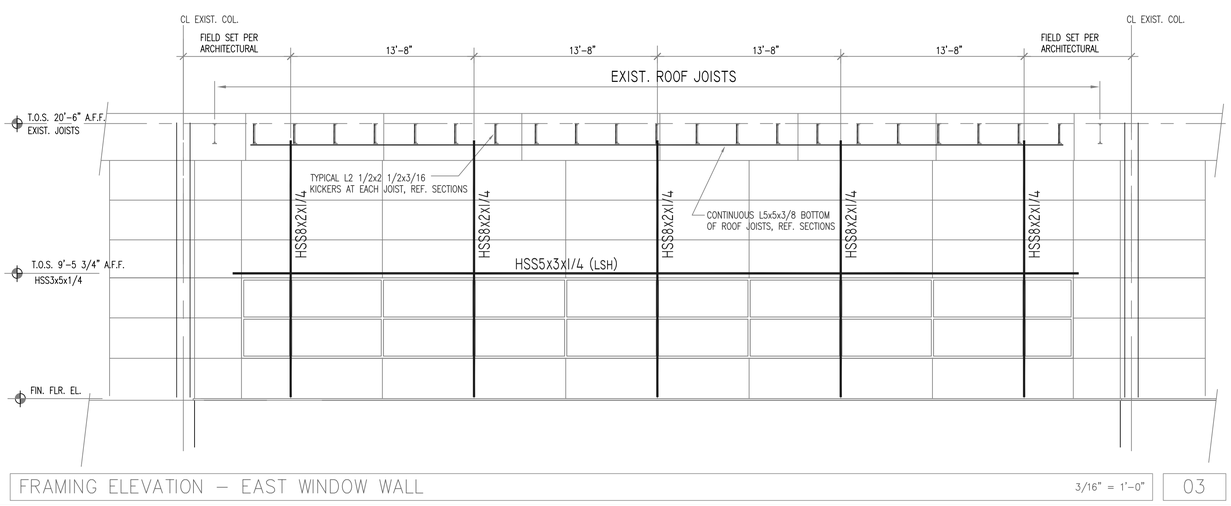
PROJECT NO. 0918
DATE APRIL 5, 2010

S3.10
OF 3

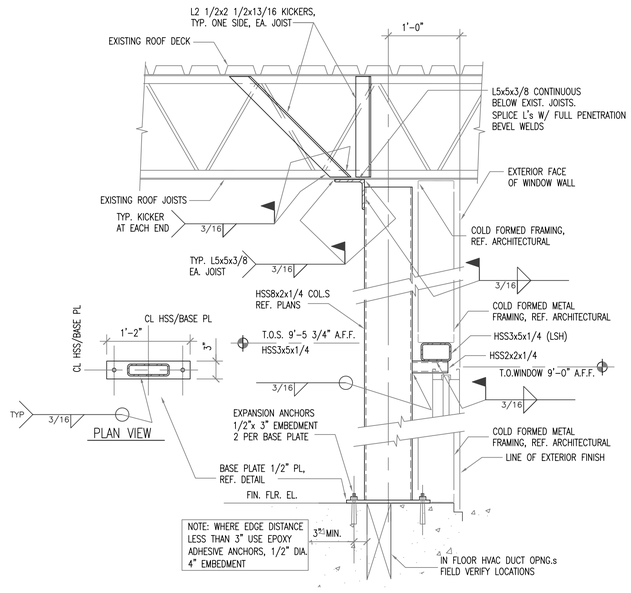


FRAMING ELEVATION – NORTH WINDOW WALL — 3/16" = 1'-0" — 01

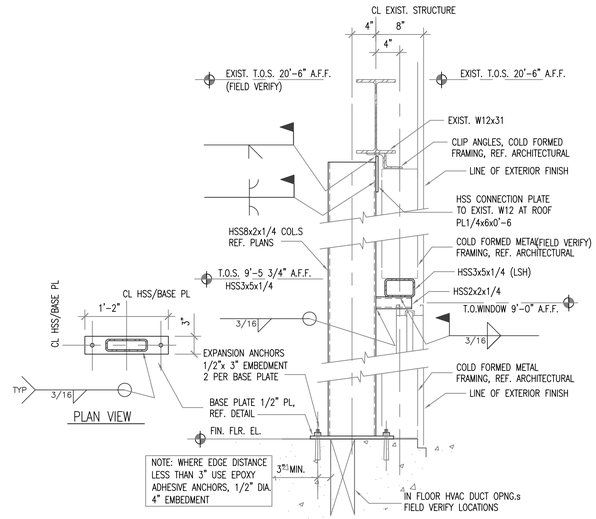
FRAMING ELEVATION – SOUTH WINDOW WALL — 3/16" = 1'-0" — 02



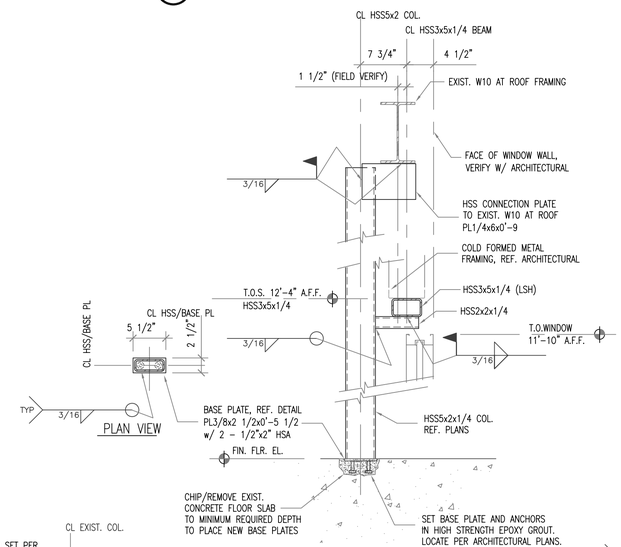
FRAMING ELEVATION – EAST WINDOW WALL — 3/16" = 1'-0" — 03



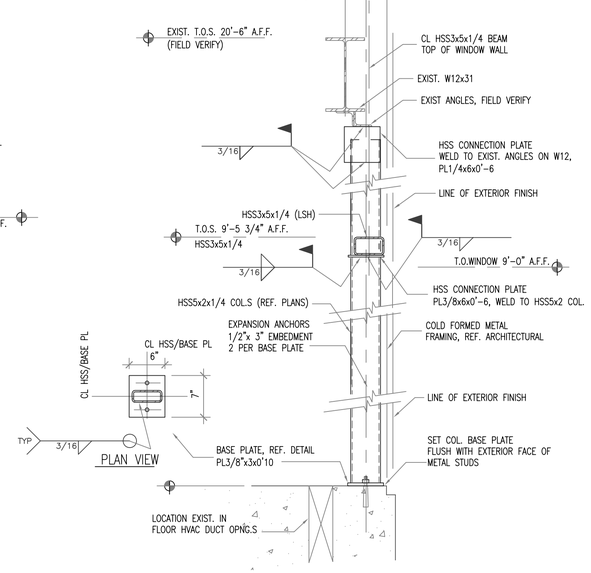
4 DETAIL - NEW COLUMN



6 DETAIL - NEW COLUMN



5 DETAIL - NEW COLUMN



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ABBREVIATIONS

A

A	AMPS , AIR (COMPRESSED)
ABV	ABOVE
A/C	AIR CONDITIONING
AC	ALTERNATING CURRENT, AIR COMPRESSOR
ACC	AIR COOLED CHILLER
ACCU	AIR COOLED CONDENSING UNIT
ACI	AMERICAN CONCRETE INSTITUTE
AD	ACCESS DOOR
ADJ	ADJUSTABLE
AF	AIR FILTER
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AL	ALUMINUM
AMB	AMBIENT
AP	ACCESS PANEL, ALARM PANEL
APD	AIR PRESSURE DROP
ARCH	ARCHITECT, ARCHITECTURAL
ARI	AMERICAN REFRIGERATION INSTITUTE
AS	AIR SEPARATOR
ASHRAE	AMERICAN SOCIETY OF HEATING & REFRIGERATION ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY OF TESTING & MATERIALS
AUX	AUXILIARY
AV	AIR VENT
AVG	AVERAGE
AWS	AMERICAN WELDING SOCIETY

B

BFD	BOILER FEED DEAERATOR
BFP	BOILER FEED PUMP
BFV	BUTTERFLY VALVE
BFW	BOILER FEED WATER
BLDG	BUILDING
BOS	BOTTOM OF STRUCTURE
BTU	BRITISH THERMAL UNIT
BV	BALL VALVE

C

C	CELSIUS
CAB	CABINET
CAP	CAPACITY
CDP	CONDENSER WATER PUMP
CDR	CONDENSER WATER RETURN
CDS	CONDENSER WATER SUPPLY
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CH	CHILLER
CHP	CHILLED WATER PUMP
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CIRC	CIRCULATING
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CO	CLEAN OUT
COL	COLUMN
COMP	COMPRESSOR
CON	CONVERTER
CONC	CONCRETE, CONCENTRIC
COND	CONDENSER, CONDENSATE
CONN	CONNECTION
CONT	CONTINUOUS, CONTINUATION
CONTR	CONTROLLER, CONTRACTOR
CPUC	CPU CHILLER
CR	CONSTANT VOLUME REHEAT, CONDENSATE RETURN
CRAC	COMPUTER ROOM A/C UNIT
CRT	CATHODE RAY TUBE
CRU	CONDENSATE RETURN UNIT
CT	COOLING TOWER
CTR	CENTER
CU	COPPER
CV	CHECK VALVE
Cv	CAPACITY INDEX
CVRH	CONSTANT VOLUME REHEAT
CW	COLD WATER

D

D	DEPTH, DRAIN
Db	DECIBEL
DB	DRY BULB
DC	DOUBLE DUCT CONSTANT VOLUME, DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DESIG	DESIGNATION
DET	DETAIL
DIA	DIAMETER
DIFF	DIFFUSER
DIM	DIMENSION
DL	DOOR LOUVER
DN	DOWN
DPR	DAMPER
DS	DOUBLE SUCTION
DSD	DUCT SMOKE DETECTOR
DV	DOUBLE DUCT VAV
DWG	DRAWING
DX	DIRECT EXPANSION
DXFC	DX FAN COIL UNIT

E

EA	EACH
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ECC	ECCENTRIC
EDB	ENTERING DRY BULB
EF	EXHAUST FAN
EFF	EFFICIENCY
EHC	ELECTRIC HEATING COIL
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
ENGR	ENGINEER
ENT	ENTERING
EQ	EQUAL

E CONT.

EQUIP	EQUIPMENT
ES	END SUCTION
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
ETR	EXISTING TO REMAIN
EUH	ELECTRIC UNIT HEATER
EVAP	EVAPORATOR
EWB	ENTERING WET BULB
EWT	ENTERING WATER TEMPERATURE
EX	EXPLOSION-PROOF
EXH	EXHAUST
EXT	EXTERNAL
EXTG	EXISTING

F

F	FAHRENHEIT, FAN, FIRE
FBO	FURNISHED BY OTHERS
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FF	FINAL FILTER
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FLR	FLOOR
FP	FAN POWERED MIXING BOX
FT	FOOT, FEET
FTR	FINNED TUBE RADIATION
FUT	FUTURE

G

G	GAS
GA	GAGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GND	GROUND
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GR	GRILLE
GRV	GRAVITY ROOF VENTILATOR
GSH	GRAND SENSIBLE HEAT
GTH	GRAND TOTAL HEAT

H

H	HUMIDIFIER, HEIGHT
HC	HEATING COIL
HD	HEAD
HE	HEAT EXCHANGER
HKP	HOUSEKEEPING PAD
HORIZ	HORIZONTAL
HP	HORSEPOWER, HIGH PRESSURE
HSC	HORIZONTAL SPLIT CASE
HSTAT	HUMIDISTAT
HSTM	HIGH PRESSURE STEAM
HSZBT	HORIZONTAL SINGLE-ZONE BLOW-THRU
HSZDT	HORIZONTAL SINGLE-ZONE DRAW-THRU
HTG	HEATING
HTR	HEATER
HUH	HOT WATER/ GAS UNIT HEATER
HV	HIGH VELOCITY
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HVU	HEATING/VENTILATING UNIT
HWR	HEATING HOT WATER RETURN
HWS	HEATING HOT WATER SUPPLY
HWB	HOT WATER BOILER
HWP	HEATING WATER PUMP
HZ	HERTZ

I

ID	INSIDE DIAMETER
IF	INTERMITTENT FAN, VARIABLE AIR VOLUME
IN	INCH
INSUL	INSULATION
INT	INTERNAL, INTERIOR

K

KEC	KITCHEN EQUIPMENT CONTRACTOR
KVA	KILOVOLT-AMPS
KW	KILOWATT

L

L	LENGTH
LAT	LEAVING AIR TEMP.
LF	LINEAR FEET
LDB	LEAVING DRY BULB
LVL	LEVEL
LWB	LEAVING WET BULB
LP	LOW PRESSURE
LRA	LOCKED ROTOR AMPS
LSTM	LOW PRESSURE STEAM
LWCO	LOW WATER CUT-OFF
LWT	LEAVING WATER TEMP.

M

M	METER
MAX	MAXIMUM
MBH	THOUSAND BTUs
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFR	MANUFACTURER
MI	MALLEABLE IRON
MIN	MINIMUM
MP	MEDIUM PRESSURE
MSTM	MEDIUM PRESSURE STEAM
MTD	MOUNTED
MU	MAKE UP
MVD	MANUAL VOLUME DAMPER

M CONT.

MZU	MULTI-ZONE UNIT

N

N.C.	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION FIRE ASSOCIATION
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NO.	NUMBER
NTS	NOT TO SCALE

O

OA	OUTSIDE AIR
OAF	OUTSIDE AIR FAN
OBD	OUTSIDE BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPD	OPPOSED BLADE DAMPER
OPG	OPENING

P

P	PUMP
PC	PLUMBING CONTRACTOR
PCHP	PRIMARY CHILLED WATER PUMP
PCHR	PRIMARY CHILLED WATER RETURN
PCHS	PRIMARY CHILLED WATER SUPPLY
PCR	PUMPED CONDENSATE RETURN
PD	PRESSURE DROP
PH	PHASE
PHW	PRIMARY HEATING WATER
PHWP	PRIMARY HEATING WATER PUMP
PHWR	PRIMARY HEATING WATER RETURN
PHWS	PRIMARY HEATING WATER SUPPLY
PICCV	PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE
PLBG	PLUMBING
PNEU	PNEUMATIC
PNL	PANEL
PNTH	PENTHOUSE
PRI	PRIMARY
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE

Q

QTY	QUANTITY

R

RA	RETURN AIR
RAD	REFRIGERATED AIR DRYER
RAF	RETURN AIR FAN
RAG	RETURN AIR GRILL
RCP	REFLECTED CEILING PLAN
RE:	REFERENCE, REFER
RED	REDUCER
RECIRC	RECIRCULATE
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCING
REQD	REQUIRED
REV	REVISION, REVISE
RH	RELATIVE HUMIDITY
RHG	REFRIGERANT HOT GAS
RKVA	RUNNING KILOVOLT-AMPS
RKW	RUNNING KILOWATTS
RL	REFRIGERANT LIQUID
RLA	RUNNING LOAD AMPS
RM	ROOM, REFRIGERATION MACHINE
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTAH	ROOFTOP AIR HANDLING UNIT
RTU	ROOFTOP UNIT
RV	RELIEF VALVE

S

S	SUPPLY AIR
SAF	SUPPLY AIR FAN
SC	STEAM CONVERTOR
SCHED	SCHEDULED
SCHP	SECONDARY CHILLED WATER PUMP
SCHR	SECONDARY CHILLED WATER RETURN
SCHS	SECONDARY CHILLED WATER SUPPLY
SCR	SILICON CONTROLLED RECTIFIER
SE	SEWAGE EJECTOR
SEC	SECONDARY
SECT	SECTION
SECT	SECTION
SF	SQUARE FEET
SFCS	SPRINKLER FLOOR CONTROL STATION
SHT	SHEET
SHWP	SECONDARY HEATING WATER PUMP
SHWR	SECONDARY HEATING WATER RETURN
SHWS	SECONDARY HEATING WATER SUPPLY
SIM	SIMILAR
SKVA	STARTING KILOVOLT-AMPS
SKW	STARTING KILOWATTS
SM	SHEET METAL
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SPF	STAIR PRESSURIZATION FAN

S CONT.

SPKR	SPEAKER
SQ	SQUARE
SRF	SMOKE REMOVAL FAN
SSSC	SOLID STATE SPEED CONTROL
ST	SOUND TRAP, STEAM TRAP
STB	STEAM BOILER
STD	STANDARD
STL	STEEL
STM	STEAM
STR	STRAINER
SURF	SURFACE
SUSP	SUSPEND

T

TC	TEMPERATURE CONTROL
TCC	TEMPERATURE CONTROL COMPRESSOR
TDH	TOTAL DYNAMIC HEAD
TF	TRANSFER FAN
TH BCK	THRUST BACK
TP	TOTAL PRESSURE
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TU	TERMINAL UNIT
TXV	THERMAL EXPANSION VALVE
TYP	TYPICAL

U

UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES, INC
UON	UNLESS OTHERWISE NOTED
U/F	UNDERFLOOR
U/S	UNDERSLAB

V

V	VOLT, VENT
VA	VOLT-AMPERE, VARIABLE AIR VOLUME
VAV	VARIABLE AIR VALVE
VD	VOLUME DAMPER
VEL	VELOCITY
VERT	VERTICAL
VR	VARIABLE AIR VOLUME REHEAT
VSZBT	VERTICAL SINGLE-ZONE BLOW-THRU
VSZDT	VERTICAL SINGLE-ZONE DRAW-THRU
VTR	VENT THRU ROOF

W

W	WATT, WIDTH, WIRE
W/	WITH
W/O	WITHOUT
WB	WET BULB
WM	WATER METER
WP	WEATHERPROOF
WPD	WATER PRESSURE DROP
WT	WATERTIGHT, WEIGHT
WWF	WELDED WIRE FABRIC

Z

Z	ZONE

MECHANICAL SYMBOLS (ALL SYMBOLS ARE NOT NECESSARILY USED ON THE DRAWINGS)

MECHANICAL LEGEND

- TRANSFER AIR DUCT
- SUPPLY DUCT CUT THROUGH
- SUPPLY DUCT BEYOND
- RETURN DUCT CUT THROUGH
- RETURN DUCT BEYOND
- SUPPLY AIR DIFFUSER
- RETURN AIR OR EXHAUST AIR DIFFUSER
- ROUND DUCT UP
- ROUND DUCT BEYOND
- CWS-UG — CHILLED WATER SUPPLY BELOW GRADE
- CWR-UG — CHILLED WATER RETURN BELOW GRADE
- CWS — CHILLED WATER SUPPLY
- CWR — CHILLED WATER RETURN
- FLEX DUCT
- HWR — HEATING WATER RETURN
- HWS — HEATING WATER SUPPLY
- C — C — M-AHU-CONDENSATE
- X# — ELECTRICAL PANEL
- ELECTRICAL DISCONNECT
- ROUND TAP WITH BD
- CRFD – CEILING RATED FIRE DAMPER
- FD – FIRE DAMPER
- 20x12 — DUCT DIMENSION KEY
  - OUT-OF-PLANE DIMENSION
  - VISIBLE DIMENSION
- (TS) TEMPERATURE SENSOR
- (T/C) CO2 & SPACE TEMPERATURE SENSOR W/ OVERRIDE
- (TH) THERMIDISTAT
- (CS) CO2 SENSOR
- P — PRESSURE SENSOR
- (OAT) OUTSIDE AIR TEMPERATURE SENSOR
- (T) THERMOSTAT
- (H) HUMIDISTAT
- (F) FIRESTAT
- (DS) RA — DUCT TEMPERATURE SENSOR, "RA" DENOTES RETURN AIR
- (M) MOTOR
- (M) MOTORIZED DAMPER
- (M) MOTORIZED MODULAR 3-WAY CONTROL VALVE
- X / Y — SUPPLY DIFFUSER TAG
  - X – DIFFUSER TAG
  - Y – SCHEDULED CFM
- X / Y — RETURN DIFFUSER TAG
  - X – DIFFUSER TAG
  - Y – SCHEDULED CFM
- EF — EXHAUST FAN
- BD — BALANCE DAMPER
- AFS — AIR FLOW STATION
- DSD — DUCT MOUNTED SMOKE DETECTOR
- SPH — HIGH DUCT STATIC PRESSURE LIMIT SWITCH
- (FS) FREEZE STAT
- (ES) OUTSIDE ENTHALPY SENSOR
- (SP) DUCT STATIC PRESSURE SENSOR
- ΔP — DIFFERENTIAL PRESSURE INDICATOR

DESIGN CONDITIONS AND FACTORS

OUTDOOR CONDITIONS:

SUMMER	99.5°F DB & 76.2° WB
WINTER	24.7°F

INDOOR CONDITIONS:

OFFICE:

SUMMER	75°F DB & 50%
WINTER	70°F (NO HUMIDITY CONTROL)

LIGHTING:

OFFICE (BASEMENT & 1ST FLR OCCUPIED):
1.1 WATTS/SQ. FT. HEAT RETURN/AIR RETURN

OFFICE (MEZZANINE OCCUPIED):
FROM 1985 RENOVATION FIXTURE SCHEDULE

EQUIPMENT:
1.3 WATTS/SQ. FT. FOR EQUIPMENT & RECEPTACLES
ACTUAL LOAD FOR MAJOR EQUIPMENT

OCCUPANCY:
OCCUPIED OFFICE, VISITOR WORK STATION SPACES
1 PERSON/OFFICE
1 OFFICE/145 SF FOR UNDEVELOPED ZONES
BREAK ROOM
2 PEOPLE
WAITING AREA 137
6 PEOPLE
RECEPTION 100A
14 PEOPLE
HR RECEPTION 118
21 PEOPLE
CONFERENCE/TRAINING ROOM
40 PEOPLE
WEIGHT ROOM
32 PEOPLE

OUTSIDE AIR QUANTITY:

CONFERENCE/TRAINING ROOM
7.5 CFM/PERSON
ALL OTHER
20 CFM/PERSON

WINDOW, WALL, AND ROOF FACTORS:

WINDOWS:

NEW GLASS – NORTH, EAST, & SOUTH BASED ON PPG 1" SUNGATE 500 LOW E INSULATED.

SUMMER	U 0.35
WINTER	U 0.35
SHADING COEF	0.33

EXISTING GLASS – WEST BASED ON PPG ¼" SINGLE PANE CLEAR GLASS.

SUMMER	U 1.03
WINTER	U 0.93
SHADING COEF	0.94

SOLID WALLS:

NEW WALLS	U 0.103
EXISTING WALLS:	U 0.248

ROOF:	U 0.248

DRAWING LIST

FIREWALL LEGEND

- ♦ 1-HR FIREWALL
- ♦♦ 2-HR FIREWALL
- ♦♦♦ 3-HR FIREWALL
- ♦♦♦♦ 4-HR FIREWALL

DRAWING/DETAIL REFERENCE KEY

RE: 1/M3.2
- REFER TO
- DRAWING/DETAIL NUMBER → 1
- SHEET NUMBER → M3.2

GENERAL NOTES

A. REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS FOR MECHANICAL CONSTRUCTION.
B. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR THE EXACT LOCATION OF ALL CEILING MOUNTED DEVICES.
C. REFER TO THE ARCHITECTURAL INTERIOR ELEVATION DRAWINGS, WHERE THE ARCHITECT HAS DRAWN SUCH ELEVATIONS, FOR THE LOCATION OF ALL WALL MOUNTED DEVICES.
D. ALL DUCTWORK SIZES SHOWN ARE FREE AIRSTREAM DIMENSIONS.
E. ALL PENETRATIONS THRU THE ROOF TO MECHANICAL EQUIPMENT, SHALL BE WITH EQUIPMENT ROOF CURBS. COORDINATE THE EXACT LOCATION OF ALL PENETRATIONS WITH THE BUILDING STRUCTURE.
F. MOST OF THE EXISTING DUCT IS INTERNALLY LINED, REPLACE AND REPAIR INSULATION WHERE INSULATION WAS REMOVED DURING ASBESTOS ABATEMENT
G. COORDINATE ALL SLAB PENETRATIONS AND SLEEVES WITH THE GENERAL CONTRACTOR PRIOR TO EACH CONCRETE POUR.
H. FURNISH ACCESS DOORS FOR INSTALLATION BY THE GENERAL CONTRACTOR IN WALLS AND CEILINGS WHERE ACCESS IS REQUIRED TO CONCEALED MECHANICAL EQUIPMENT, VALVES, CONTROLS AND OTHER DEVICES.
I. FURNISH ACCESS DOORS FOR INSTALLATION BY THE GENERAL CONTRACTOR IN WALLS AND CEILINGS WHERE ACCESS IS REQUIRED TO CONCEALED MECHANICAL EQUIPMENT, VALVES, CONTROLS AND OTHER DEVICES.
J. ALL DUCTWORK SHALL BE INSTALLED WITH A MINIMUM OF (10) INCHES ABOVE THE FINISHED CEILING TO PROVIDE CLEARANCE FOR PIPING, ELECTRICAL CONDUIT, AND LIGHTING FIXTURES.
K. ALL SUPPLY AIR DIFFUSERS ARE 4-WAY THROW, UNLESS OTHERWISE NOTED IN THE DRAWINGS WITH FLOW ARROWS.
L. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PAINTING ANY ABOVE CEILING ITEMS THAT CAN BE SEEN THRU SLOTS OR GRILL FLAT BLACK.
M. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING FLAT BLACK METAL BLANKOFF FOR UNUSED SECTIONS OF SLOT DIFFUSERS.
N. COORDINATE THE EXACT LOCATION OF TERMINAL UNITS WITH THE LOCATION OF LIGHTING FIXTURES, PIPING, AND OTHER CONSTRUCTION, TO ALLOW FOR PROPER ACCESS TO ALL SERVICE TERMINAL UNITS
O. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION OF DUCTWORK AND PIPING WITH OTHER TRADES AND PROVIDING OFFSETS IN DUCTWORK AND PIPING AS REQUIRED.
P. CEILING/FLOOR PLENUM IS USED AS A RETURN AIR PATH ON THIS PROJECT.
Q. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE DUCTWORK FABRICATION DRAWINGS WITH THE FIRE, SMOKE, FIRE/SMOKE PARTITIONS SHOWN ON THE ARCHITECTURAL DRAWINGS. FIRE, SMOKE, AND FIRE/SMOKE DAMPERS SHALL BE PROVIDED AT ALL LOCATIONS WHERE THEY ARE REQUIRED, EVEN IF THEY ARE NOT SHOWN ON THE MECHANICAL PLAN.
R. PROVIDE MANUAL BALANCE DAMPERS IN BRANCH DUCT AND IN TAPS FOR ALL SUPPLY DUCTS FOR BALANCING. BALANCE DAMPERS IN DIFFUSERS NOT ALLOWED UNLESS NOTED ON DRAWINGS OR SCHEDULES.
S. FOR SUPPLY AND RETURN DIFFUSER NECK SIZE SEE DIFFUSER SCHEDULE ON SHEET M3.0.
T. RETURN DUCTS FROM GRILLES ARE SAME SIZE AS DIFFUSER OPENING.
U. PROVIDE DAMPERS, TURNING VANES, AND SPLITTERS AS REQUIRED FOR EFFICIENT OPERATION.
V. PROVIDE TURNING VANES IN ALL MITERED CORNERS IN MAIN DUCTS.
W. LIMIT FLEXIBLE DUCT WORK TO 6' FROM DIFFUSERS.
X. PROVIDE CONDENSATE OVERFLOW DRAIN PAN BELOW ALL AIR HANDLERS & DUCT FURNACES WITH PIPED DRAIN.
Y. AIR HANDLERS TO BE EQUIPPED WITH FIRESTATS / SMOKE DETECTORS, WIRED TO SHUT OFF FAN UPON DETECTION. DUCT DETECTORS INSTALLED BY HVAC CONTRACTOR, CONTROL WIRING TO BE BY ELECTRICAL/FIRE PROTECTION CONTRACTOR. SEE MECH AHU SCHEDULE FOR DUCT SMOKE DETECTOR PER AHU REQUIREMENTS.
V. FOR DUCT SMOKE DETECTOR LOCATIONS, SEE MECH DETAIL ON SHEET M3.0.
W. PROVIDE TRANSITIONS FOR ALL LOUVERS GRILLES AND EQUIPMENT AS REQUIRED.
X. PROVIDE BOWDEN CABLE REGULATOR FOR BALANCE DAMPERS LOCATED ABOVE HARD CEILING.
Y. COORDINATE DUCT LAYOUT AND PLACEMENT OF DIFFUSERS W/ LIGHTING LAYOUT.
Z. THE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE OF THE SPECIFICATIONS AS WELL AS THE DRAWINGS.
AA. EXHAUST DUCTS FROM DIFFUSERS, STUB UP SAME SIZE AS DIFFUSER OPENING. TRANSITION TO DUCT SIZE AS REQUIRED.
AB. DECKTITE OR LEAD ROOF PENETRATIONS.
AC. FIRESTOP ALL PENETRATIONS IN RATED AREAS.
AD. BALANCE DAMPERS TO BE LOCATED OVER SUSPENDED CEILINGS FOR ACCESS.

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04/06/10

STATE OF TEXAS
BRIAN W. BRUMMIT
74740
REGISTERED PROFESSIONAL ENGINEER

Renovation of the
Bryan City Hall Annex
Owner: City of Bryan, P.O. Box 1000, Bryan, Texas 77805

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Number	Date

Project 0918
APRIL 6, 2010

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of

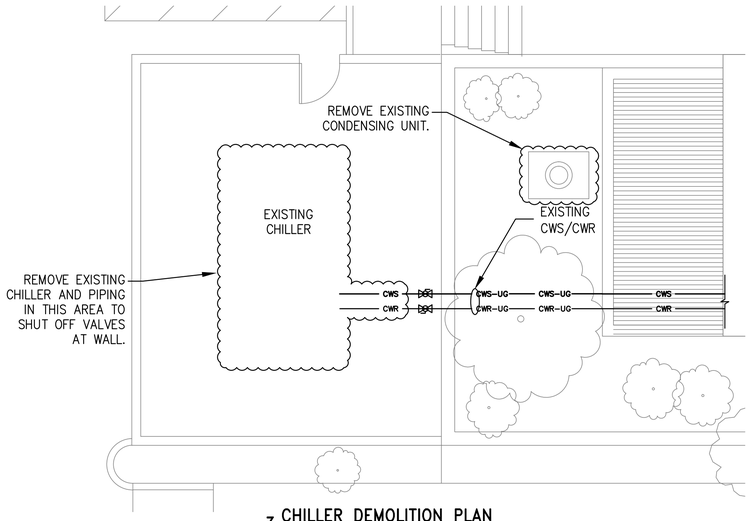
KEYED NOTES:

- Ⓐ CHASE TO REMAIN.
- Ⓑ REMOVE DUCT BACK TO RISER.
- Ⓒ RETURN IN WALL NEAR BASEBOARD TO REMAIN.
- Ⓓ SEAL DUCT AIRTIGHT.

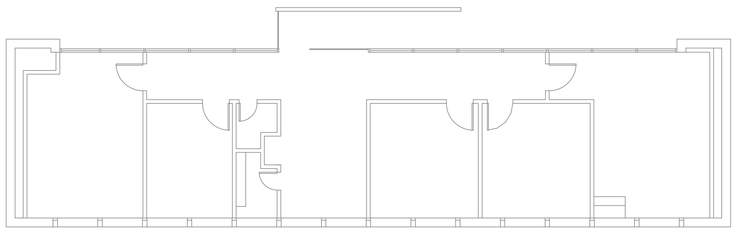
KEY:

REMOVE DUCT.

DUCT TO REMAIN



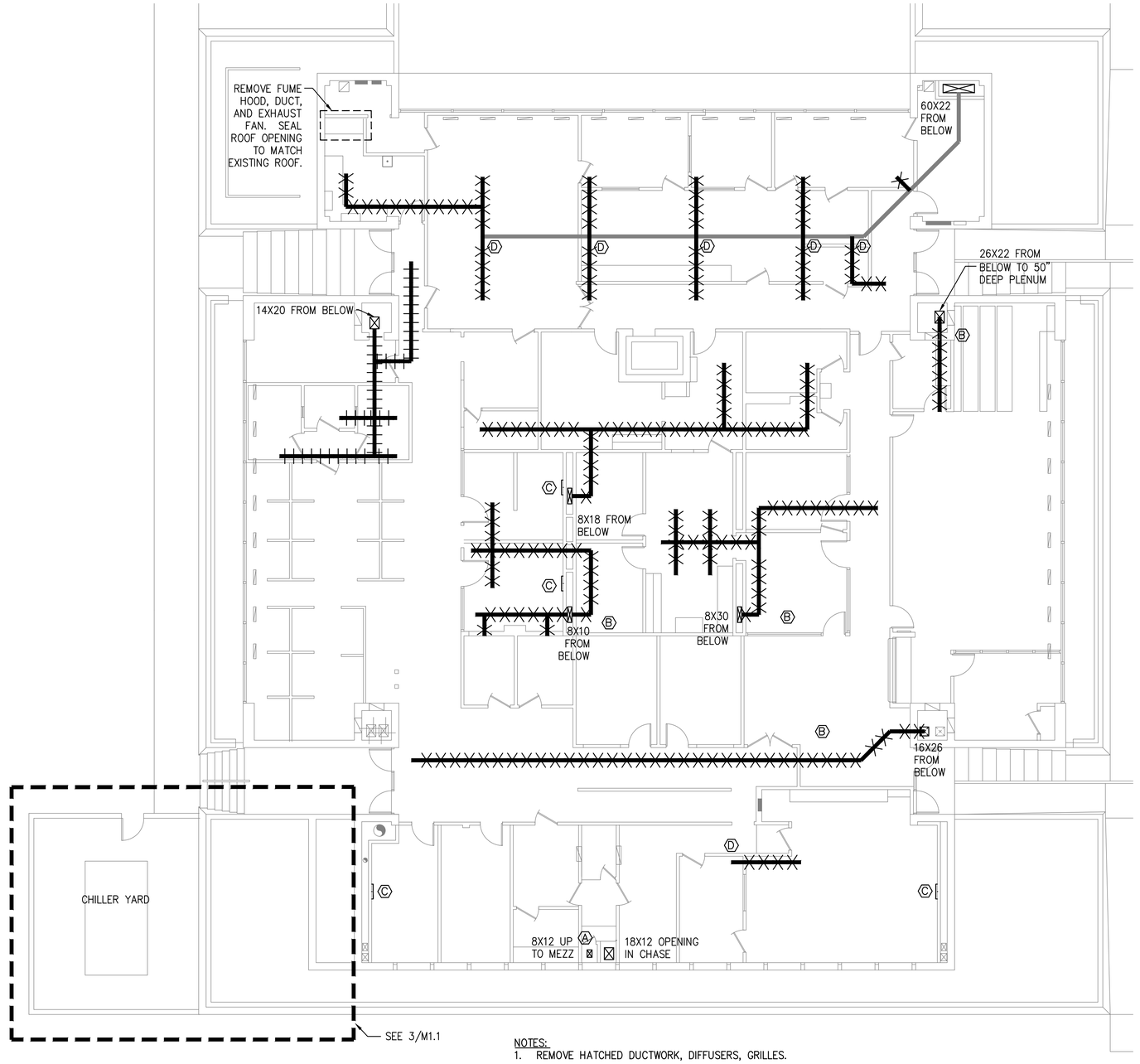
3 CHILLER DEMOLITION PLAN
SCALE: 1/8"=1'



NOTES:
1. KEEP AND REUSE EXISTING DIFFUSERS, GRILLES AND DUCTWORK IN THIS AREA.
2. SUPPORT DUCTWORK IN PLACE UNTIL NEW CEILING IS INSTALLED.

2 MECHANICAL DEMO – MEZZANINE
SCALE: 1/8"=1'

NOTES:
1. SEE M1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.



NOTES:
1. REMOVE HATCHED DUCTWORK, DIFFUSERS, GRILLES.

1 MECHANICAL DEMO – FIRST FLOOR
SCALE: 1/8"=1'

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NOTES:
1. SEE M1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.
2. SINGLE LINE SHOWS EXISTING DUCT, DOUBLE LINE SHOWS NEW DUCT.
3. PROVIDE NEW FLEX TO NEW AND RELOCATED DIFFUSERS.
4. CLEAN DIFFUSERS BEFORE RELOCATION

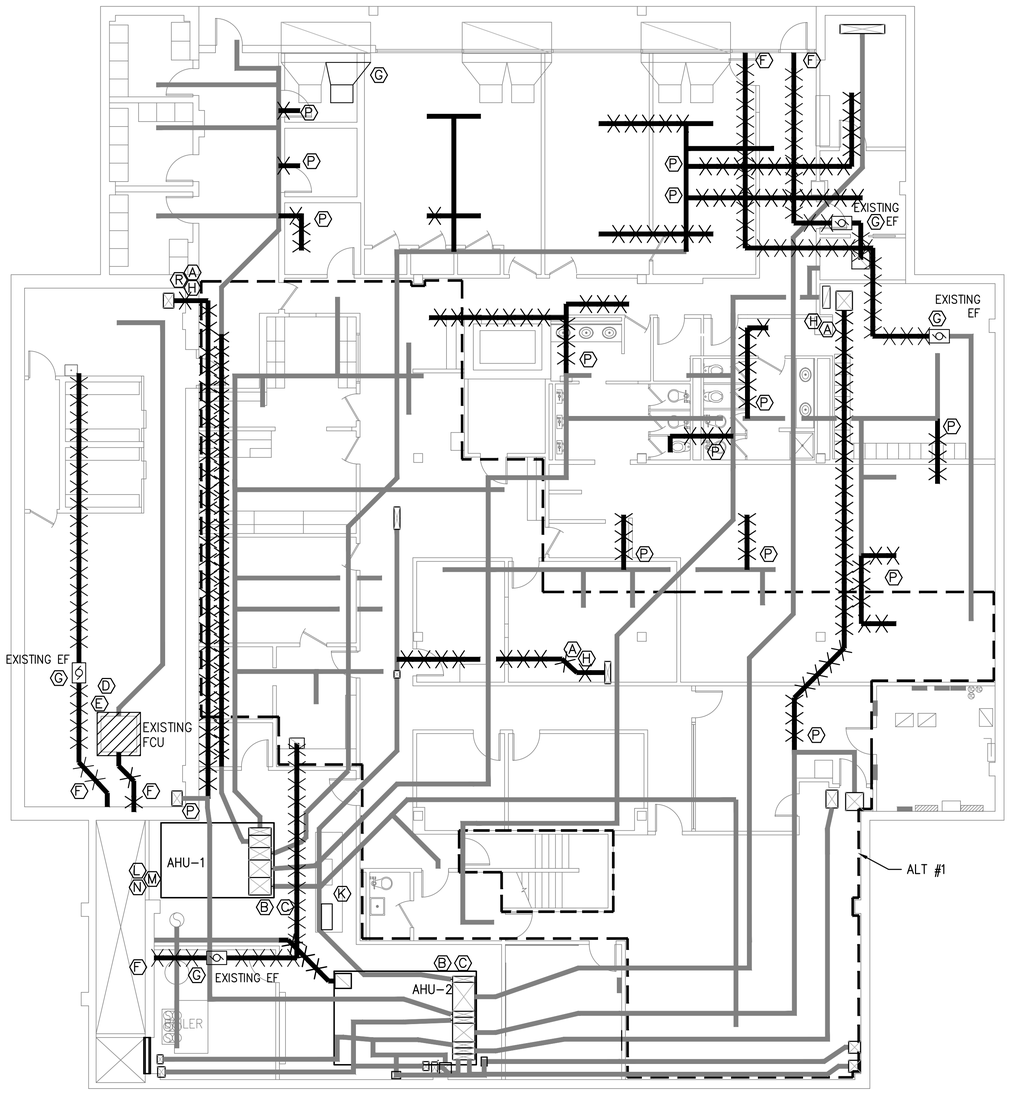
KEYED NOTES:

- (A) REMOVE DUCT TO RISER.
- (B) REMOVE EXISTING AIR HANDLER.
- (C) KEEP DUCT TRANSITIONS & REUSE IF POSSIBLE.
- (D) REMOVE FAN COIL AND DUCT BACK TO OA LOUVER.
- (E) REMOVE HYDRONIC PIPING BACK TO HEADER IN MECHANICAL ROOM AND CAP.
- (F) REMOVE LOUVER & REPAIR OPENING TO MATCH EXISTING WALL.
- (G) REMOVE EXISTING EXHAUST FAN.
- (H) OPENING THROUGH STRUCTURE TO REMAIN.
- (K) REPLACE PUMP LABELED "FE-WP1PL" WITH CWP-3.
- (L) REMOVE DAMPERS, FILTERS AND ASSOCIATED EQUIPMENT FROM EXISTING 9'X9' OA LOUVER AND PLENUM.
- (M) SEAL EXISTING OPENING IN OA PLENUM INTO MECHANICAL ROOM.
- (N) REPAIR OR REPLACE BIRD SCREEN ON OA LOUVER AS REQUIRED.
- (P) SEAL DUCT OPENING.
- (R) PENETRATION THROUGH WALL TO REMAIN.

KEY:

REMOVE DUCT.

DUCT TO REMAIN



1 MECHANICAL DEMO – BASEMENT
SCALE: 1/8"=1'

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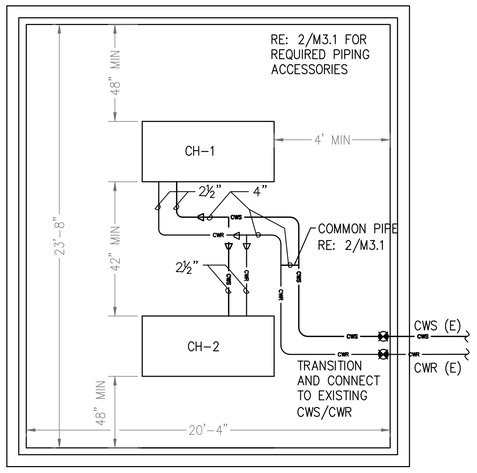
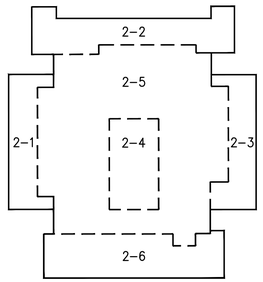
KEYED NOTES:

- Ⓐ THERMOSTAT FOR ZONE 2-1
- Ⓑ THERMOSTAT FOR ZONE 2-2
- Ⓒ THERMOSTAT FOR ZONE 2-3
- Ⓓ THERMIDISTAT FOR ZONE 2-4
- Ⓔ THERMIDISTAT FOR ZONE 2-5
- Ⓕ THERMOSTAT FOR ZONE 2-6
- Ⓖ THERMOSTAT FOR ZONE 2-7
- Ⓗ THERMOSTAT FOR ZONE 2-8
- Ⓚ ADJUST AIR FROM EXISTING SIDEWALL DIFFUSERS AS SHOWN.
- Ⓛ DIFFUSER WITH 6"ø NECK.
- Ⓜ BOTTOM OF 22X22 DUCT @ 17'-6" AFF.
- Ⓝ CONNECT TO EXISTING 6"ø DIFFUSER.
- Ⓟ ROUTE TO EXISTING EXHAUST DUCT.
- Ⓡ NOT USED.
- Ⓢ TRANSITION FROM EXISTING 14X20 RISER.
- Ⓣ PROVIDE WITH PLENUM BOOT.
- Ⓤ CONNECT TO PLENUM.
- Ⓦ MOUNT RETURN AT BASEBOARD.
- Ⓧ TAP AND BD IN BOTTOM OF DUCT.
- Ⓨ BOTTOM OF DUCT @ 12'10" AFF.
- Ⓩ REMOVE OBSTRUCTIONS FROM WALL GRILLES.



3 ENLARGED CHILLER YARD PLAN
SCALE: 1/4"=1'



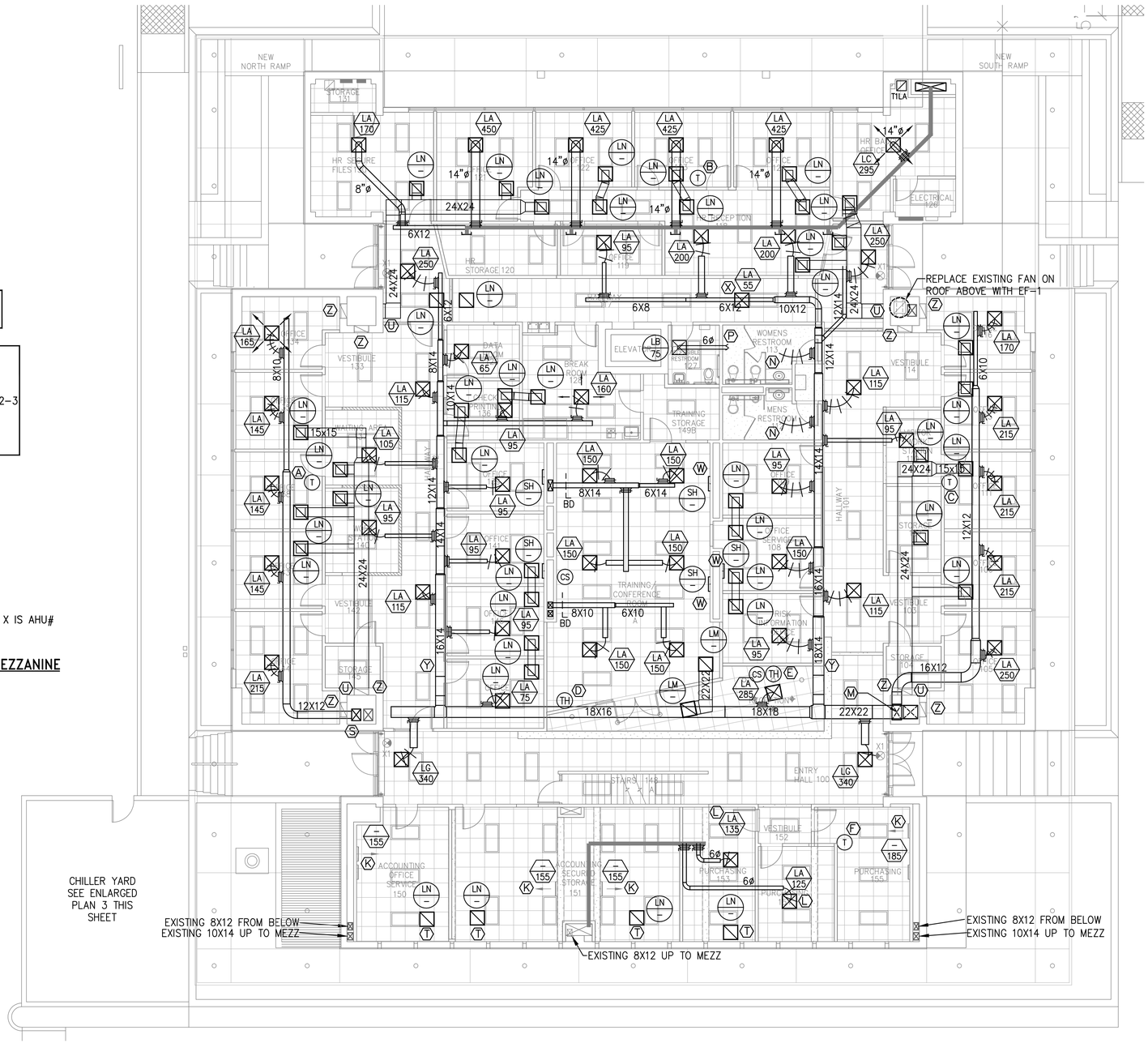
NOTES:
1. ZONE NUMBERS IN FORM X-Y WHERE X IS AHU# AND Y IS ZONE.

4 HVAC ZONES: 1ST FLOOR AND MEZZANINE
SCALE: 1/32"=1'

NOTES:
1. INSTALL EXISTING DIFFUSERS IN NEW CEILING TILES.

1 MECHANICAL PLAN - SECOND FLOOR
SCALE: 1/8"=1'

NOTES:
1. SEE M1.0 FOR GENERAL NOTES & LEGEND.
2. SEE M3.0 FOR SCHEDULES.
3. SINGLE LINE SHOWS EXISTING DUCT.
4. DOUBLE LINE SHOWS NEW DUCT.



2 MECHANICAL PLAN - FIRST FLOOR
SCALE: 1/8"=1'

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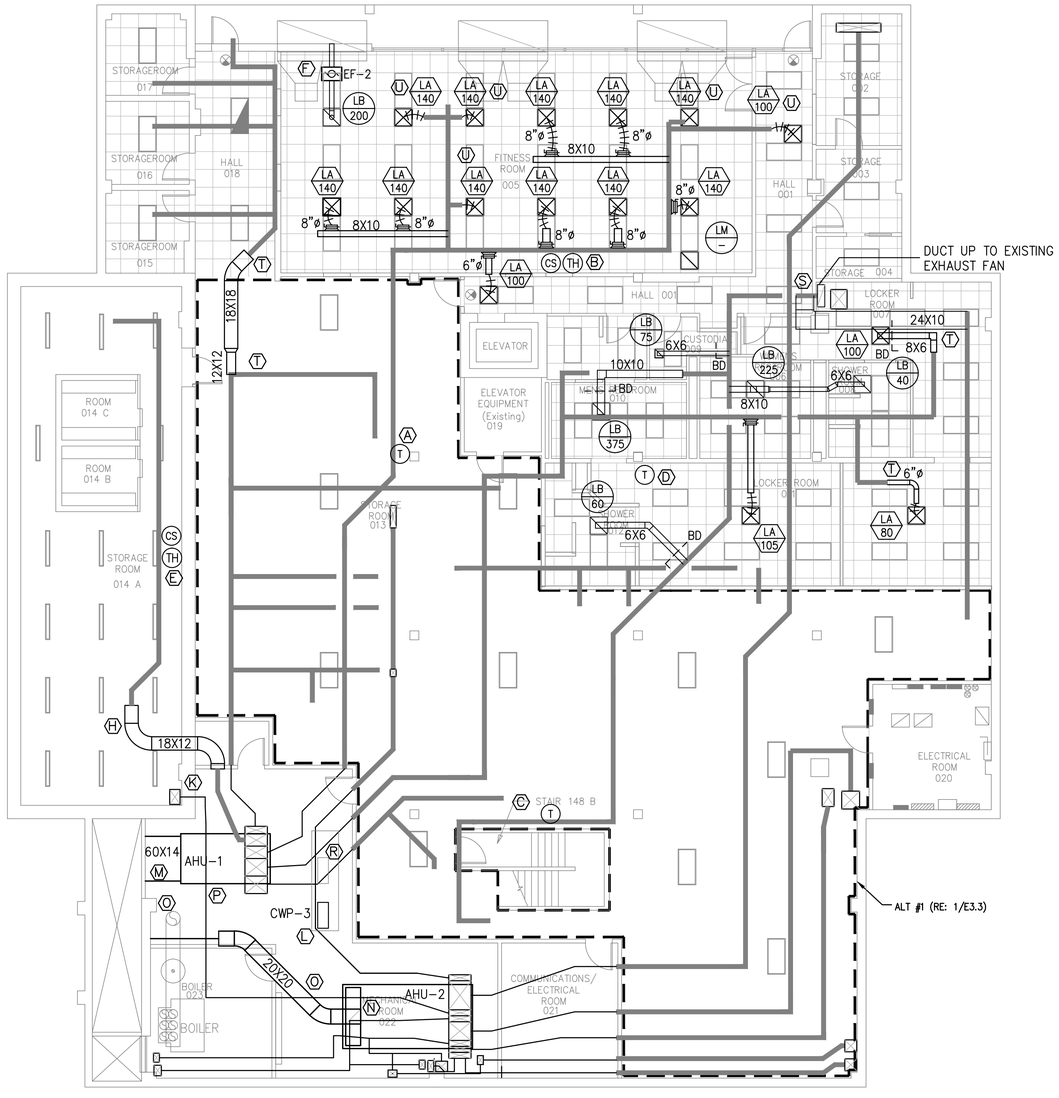
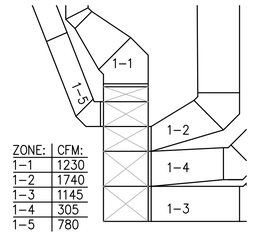
NOTES:
1. SEE M1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.
2. SINGLE LINE SHOWS EXISTING DUCT, DOUBLE LINE SHOWS NEW DUCT.
3. PROVIDE NEW FLEX DUCT TO NEW AND RELOCATED DIFFUSERS.
4. CHECK FUNCTIONALITY OF CHEMICAL SHOT FEEDER PRIOR TO START-UP.
5. CLEAN DIFFUSERS BEFORE RELOCATION.
6. IF ALT #1 IS ACCEPTED, REPLACE FLEX DUCT AND CLEAN AND REUSE DIFFUSERS & GRILLES
7. IF ALT #1 IS NOT ACCEPTED, SUPPORT EXISTING DIFFUSERS & GRILLES FROM STRUCTURE.

KEYED NOTES:

- (A) THERMOSTAT FOR ZONE 1-1.
- (B) THERMIDISTAT FOR ZONE 1-2.
- (C) THERMOSTAT FOR ZONE 1-3.
- (D) THERMOSTAT FOR ZONE 1-4.
- (E) THERMIDISTAT FOR ZONE 1-5.
- (F) MOUNT EF-2 BETWEEN JOISTS.
- (G) SEAL LOUVER AIR TIGHT AROUND EXHAUST DUCT.
- (H) CONNECT TO EXISTING 18X12 DUCT.
- (K) TRANSITION TO 18X12 DUCT.
- (L) CONNECT EXISTING PIPING TO NEW PUMP CWP-3.
- (M) CONNECT NEW O.A. DUCT TO REAR MIXING BOX INLET.
- (N) NEW TRANSITION DOWN TO 20X78 OPENING IN AHU.
- (O) CONNECT EXISTING CONDENSATE LINE TO NEW AHU.
- (P) REUSE EXISTING EQUIPMENT PAD.
- (R) EXISTING STAND-BY COMBINATION HEATING WATER/CHILLED WATER PUMP, TO REMAIN.
- (S) CONNECT TO EXISTING 30X10 EXHAUST DUCT.
- (T) CONNECT TO EXISTING DUCT.
- (U) DIFFUSER NECK SIZE EQUALS DUCT SIZE.

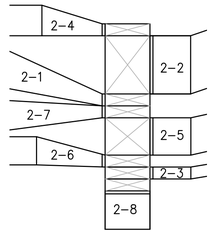


1 MECHANICAL PLAN - BASEMENT - BASE BID
SCALE: 1/8"=1'



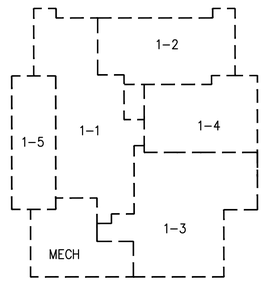
ZONE:	CFM:
1-1	1230
1-2	1740
1-3	1145
1-4	305
1-5	780

2 AHU-1 ZONE DIAGRAM
SCALE: 1/4"=1'



ZONE:	CFM:
2-1	820
2-2	2140
2-3	1065
2-4	900
2-5	4120
2-6	990
2-7	750
2-8	715

3 AHU-2 ZONE DIAGRAM
SCALE: 1/4"=1'



4 HVAC ZONES - BASEMENT
SCALE: 1/32"=1'

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DIFFUSER SCHEDULE

TAG	DESCRIPTION	FACE DAMPER	FACE SIZE (INCHES)	CFM	NECK SIZE (INCHES)	MAX NC*	MANUFACTURER & MODEL NUMBER	NOTES
LA	LAY-IN SUPPLY DIFFUSER	NO	24X24	0-100	6Φ	-	PRICE 24"X24"/APDSP/3/4	1
				101-175	8Φ	19		
				176-275	10Φ	22		
				276-395	12Φ	25		
				396-535	14Φ	27		
LB	LAY-IN RETURN/EXHAUST GRILLE	NO	24X24	0-175	6X6	-	PRICE 24"X24"/APDDR/3	1
				176-310	8X8	-		
				311-485	10X10	-		
				486-700	12X12	-		
				701-955	14X14	-		
				956-1100	15X15	-		
LC	LAY-IN SUPPLY DIFFUSER	NO	24X24	0-100	6Φ	-	PRICE 24"X24"/APDSP/3/4D	1
				101-175	8Φ	19		
				176-275	10Φ	22		
				276-395	12Φ	25		
				396-535	14Φ	27		
LD	LAY-IN RETURN/EXHAUST GRILLE	NO	12X12	0-175	6X6	-	PRICE 12"X12"/APDDR/3	1
LG	LAY-IN SUPPLY DIFFUSER (HIGH CEILING)	NO	24X24	220-380	10Φ	20	PRICE 24"X24"/ASCDA/3/3C	1
				381-550	12Φ	22		
LM	LAY-IN PLENUM RETURN	NO	24X24	-	22X22	-	PRICE 24"X24"/APDDR/3	1
LN	LAY-IN JUMPER RETURN	NO	24X24	-	15X15	-	PRICE 24"X24"/APDDR/3	1
SH	SIDEWALL RETURN GRILLE	NO	D + 1 3/4	-	24X8	-	PRICE 630/F/L/A	1

*** - INDICATES NC LEVEL BELOW 15.**
D - NOMINAL DUCT DIMENSION.
L - LISTED DIMENSION
NOTES:
1. CO-ORDINATE FINISH WITH ARCHITECT.

AIR COOLED CHILLER SCHEDULE

DESIGN MODEL	CHL-1	CHL-2
MAKE	CARRIER	CARRIER
MODEL	30RAP030	30RAP030
PLAN DESTINATION ROOM	MECH YARD	MECH YARD
CAPACITY (TONS)	26.8	26.8
COMPRESSOR INPUT POWER (KW)	32.4	32.4
UNIT EER	9.15	9.15
IPVL	14.7	14.7
REFRIGERANT	PURON	PURON
COOLER DATA:		
FLUID TYPE	WATER	WATER
FLUID ENTERING TEMP (F)	54°	54°
FLUID LEAVING TEMP (F)	44°	44°
FLUID FLOW RATE (GPM)	64.0	64.0
FLUID PRESSURE DROP (FT.WG)	27.9	27.9
FOULING FACTOR	0.00010	0.00010
ENT CONDENSER AIR TEMP °F	100°F	100°F
MISCELLANEOUS DATA:		
NAMEPLATE VOLTAGE (VOLTS)	480/3/60	480/3/60
MCA (AMPS)	70.2	70.2
MOCP (AMPS)	90.0	90.0
REMARKS	1,2,3,4	1,2,3,4

REMARKS:
1. PROVIDE WITH INTEGRATED PUMP PACKAGE WITH 73.9FT OF HEAD.
2. DISCONNECT EXPANSION TANK PROVIDED WITH PUMP PACKAGE PRIOR TO INSTALLATION.
3. PROVIDE PHASE LOSS, PHASE IMBALANCE, AND PHASE REVERSAL PROTECTION.
4. EER DOES NOT INCLUDE PUMPS.

HVAC PUMP SCHEDULE

DESIGN MODEL	CWP-3
MAKE	BELL & GOSSETT
SERIES	1510
PLAN DESIGNATION ROOM	BASEMENT MECHANICAL RM
TYPE	CENTRIFUGAL
CAPACITY (GPM)	145
HEAD (FT)	55
IMPELLER SIZE ø	7.5
SUCTION SIZE ø	3
DISCHARGE SIZE ø	2.5
SPEED (RPM)	1750
MOTOR (HP)	5.0
ELECTRICAL	480/3/60
REMARKS	

HYDRONIC MULTIZONE AIR HANDLER SCHEDULE

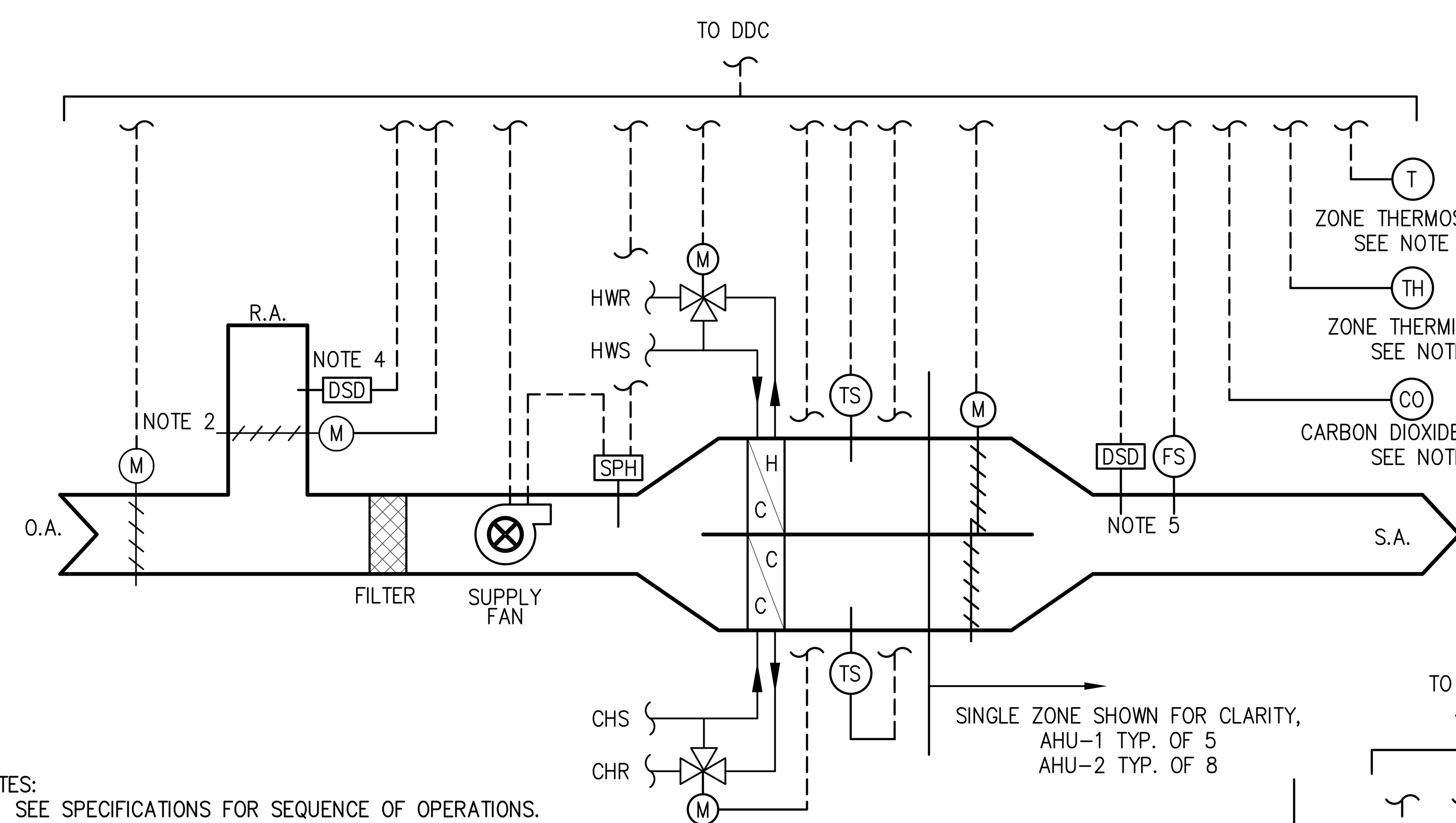
MARK	AHU-1	AHU-2
MAKE	CARRIER	CARRIER
MODEL	39M	39M
PLAN DESTINATION ROOM	BASEMENT MECHANICAL ROOM	BASEMENT MECHANICAL ROOM
TYPE	BLOW-THROUGH	BLOW-THROUGH
ARRANGEMENT	HORIZONTAL	HORIZONTAL
OUTLET	VERTICAL	HORIZONTAL
RATINGS		
FLOW (CFM)	5200	11500
OA (MIN) (CFM)	1000	1260
OA (MAX) (CFM)	1700	3490
EXT S.P. (W.G.)	2.00	2.25
FAN		
TYPE	FORWARD CURVE	FORWARD CURVE
DRIVE	BELT	BELT
FAN SPEED (RPM)	1356	990
MOTOR (BHP/MHP)	5.9/7.5	12.4/15.0
ELEC-(V/PHASE/CYCLE)	480/60/3	480/60/3
HEATING COIL		
AIR SIDE		
FACE AREA (SQ. FT.)	5.42	11.56
FACE VEL (FPM)	959.4	994.8
AIR P.D. (W.G.)	0.71	0.70
ENT/LEAVING TEMP (°F)	55.2/90.5	56.3/91.9
TOTAL CAP (MBH)	198.3	448.6
FLUID SIDE		
FLUID	WATER	WATER
FLOW (GPM)	9.9	44.9
ENT/LEAVING TEMP (°F)	180.0/140.0	180.0/140.0
PRESSURE DROP (FT)	0.8	9.6
COOLING COIL		
AIR SIDE		
FACE AREA (SQ. FT.)	9.93	24.41
FACE VEL (FPM)	523.7	471.1
AIR P.D. (W.G.)	1.3	0.68
ENT DB/WB (°F)	83.0/67.4	82.4/67.1
LEAVING DB/WB (°F)	53.9/53.5	56.3/55.0
SEN CAP (MBH)	163.9	324.8
TOTAL CAP (MBH)	221.4	431.1
FLUID SIDE		
FLUID	WATER	WATER
FLOW (GPM)	36.9	86.2
ENT/LEAVING TEMP (°F)	44.0/56.0	44.0/54.00
PRESSURE DROP (FT)	2.1	11.9
FILTERS		
AREA (SQ FT)	13.33	33.33
HUMIDIFICATION		
POUNDS PER HOUR	-	-
REMARKS	1,3,4	2,3,4

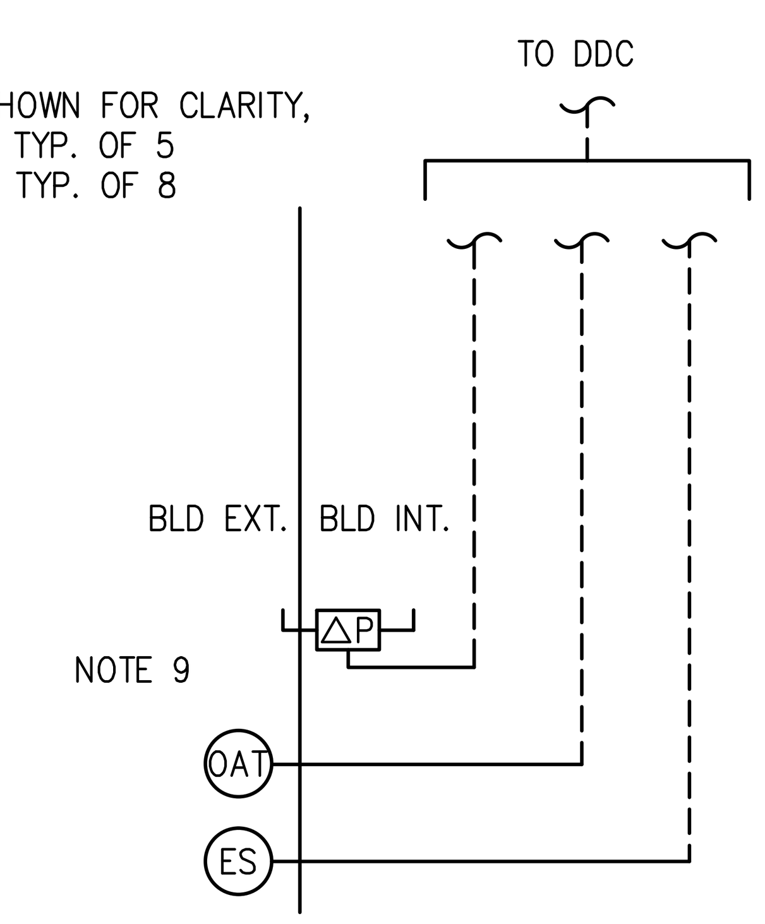
NOTES:
1. 5 ZONE UNIT.
2. 8 ZONE UNIT.
3. UNIT CONSISTS OF AN ANGLED FILTER (2" THROW AWAY FILTERS) MIXING BOX WITH MOTORIZED TOP AND REAR INLETS, BLOW THROUGH FAN SECTION, AND MULTIZONE COIL SECTION.
4. PROVIDE DUCT SMOKE DETECTORS ON BOTH THE SUPPLY AND RETURN, TWO REQUIRED. SMOKE DETECTORS AND CONTROL STATION TO BE PROVIDED BY FIRE ALARM CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR.

FAN SCHEDULE

MARK	MAKE & MODEL	CFM	EXT. S.P.	SONES	RPM	HP	WATTS	VOLTS/Ø	AREA SERVED	REMARKS
EF-1	COOK ACE-D 135C15D	2,063	0.50	15.5	1550	1/2	-	115/1	LOCKERS-SHOWERS-RRS	1-2,6-8
EF-2	COOK GN-182	200	0.25	4.5	1298	-	160	115/1	WEIGHT TRAINING RM	1,3-7

NOTES:
1. **PROVIDE PREWIRED DISCONNECT.**
2. **CONTROL WITH BUILDING EMS.**
3. **CONTROL WITH LIGHTS.**
4. **PROVIDE PREWIRED 5A 120V FAN SPEED CONTROLLER.**
5. **PROVIDE GEMINI ISOLATOR KIT.**
6. **PROVIDE BACKDRAFT DAMPER.**
7. **PROVIDE 277V/ 115V TRANSFORMER.**
8. **PROVIDE 10A 120V FAN SPEED CONTROLLER.**





NOTES:
1. SEE SPECIFICATIONS FOR SEQUENCE OF OPERATIONS.
2. MOTORIZED DAMPERS FOR THE AHU RETURN & OUTSIDE AIR ARE INTEGRATED WITH THE UNIT.
3. SINGLE ZONE SHOWN FOR CLARITY.
4. EXTEND RETURN OPENING TO ALLOW FOR DSD.
5. ONE FS & ONE DSD IN SUPPLY PER AHU, PLACE IN ACCESSABLE LOCATIONS.
6. ZONE THERMOSTATS, ALL ZONES EXCEPT THOSE LISTED WITH THERMIDISTATS IN NOTE 7.
7. ZONE THERMIDISTATS IN ZONES 1-2, 1-5; ZONES 2-4, 2-5.
8. CARBON DIOXIDE SENSORS IN ZONE 1-2 MODULATES O.A DAMPER FOR AHU-1, CARBON DIOXIDE SENSOR IN ZONE 2-4 MODULATES O.A. DAMPER FOR AHU-2.
9. ONLY ONE dP SENSOR, OAT SENSOR, AND ES SENSOR NEEDED IN THIS PROJECT.

1 MULTIZONE AHU CONTROL SCHEMATIC: AHU-1, AHU-2
SCALE: NONE

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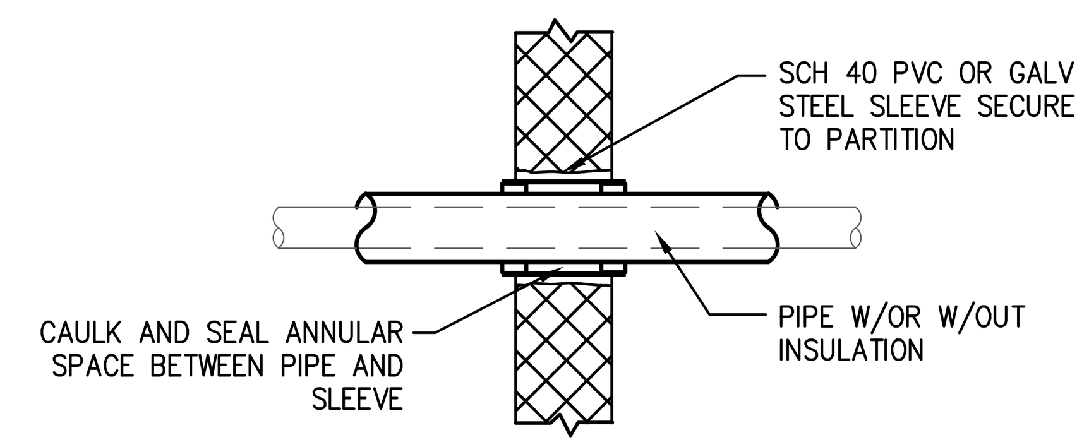
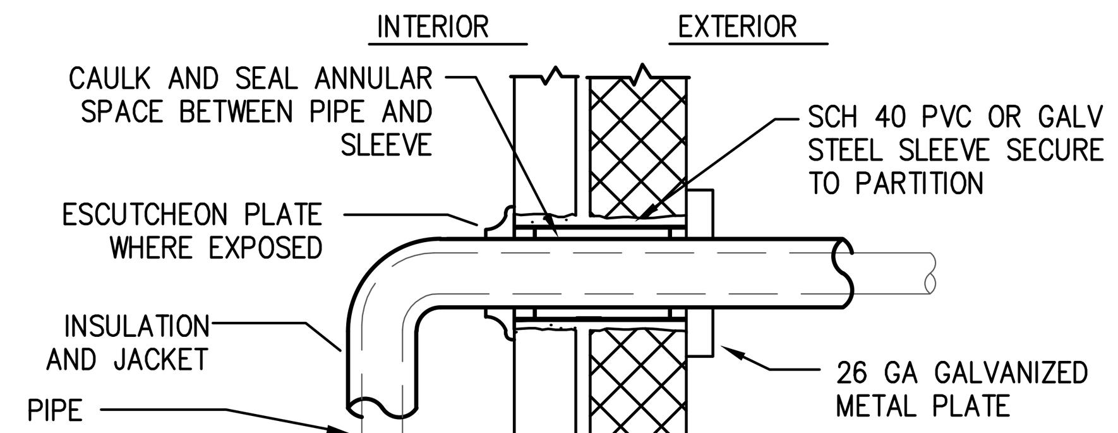
\\600_server\projects\Arkitex\Bryan City Hall Annex\M3.0.dwg, 4/5/2010 3:20:58 PM

NOTE: WHERE PIPING IS EXPOSED AT FINISH WALLS, FLUSH MOUNT SLEEVE AND PROVIDE ESCUTCHEON PLATE.

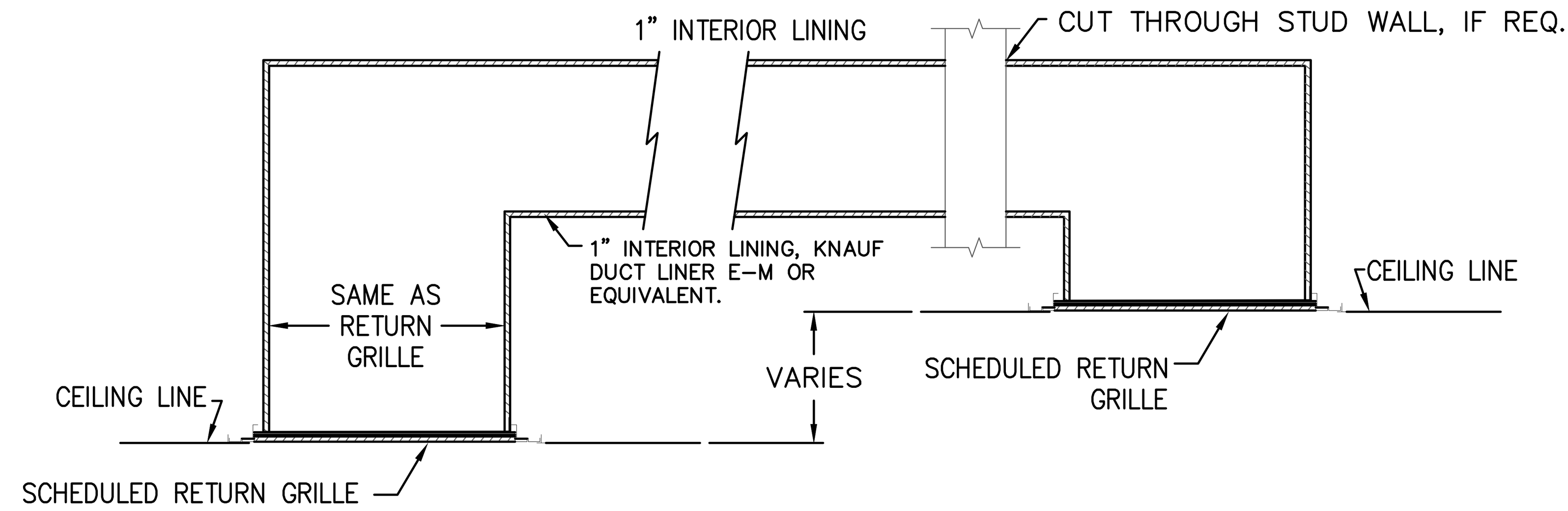




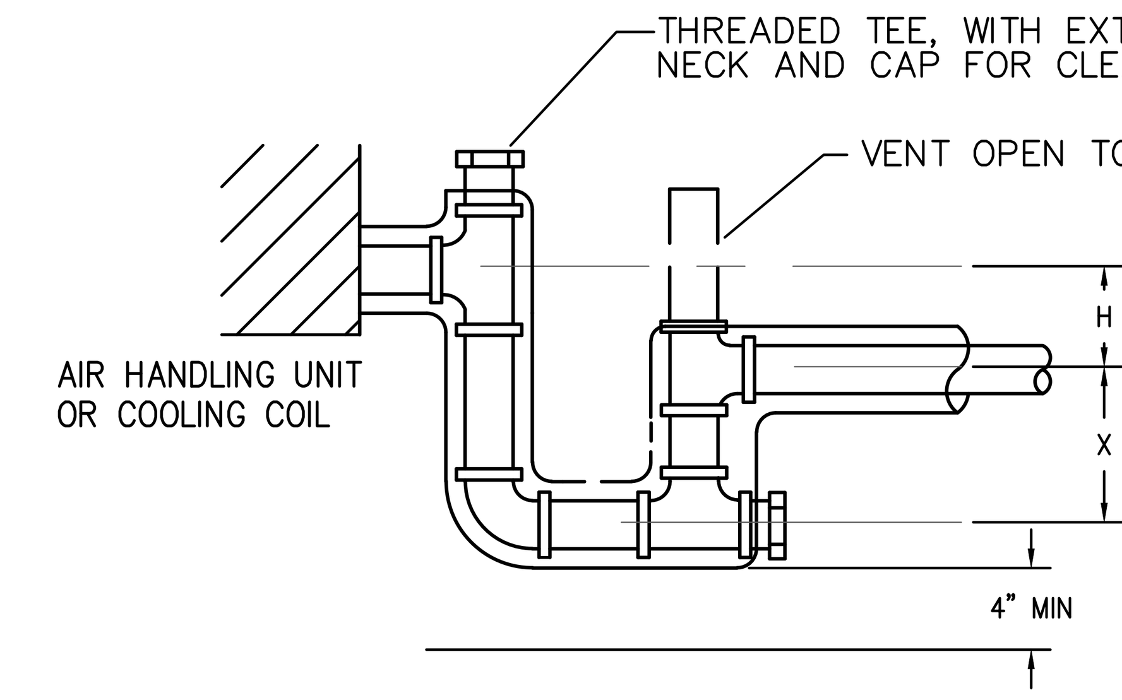
ESCUTCHEON PLATE:
1. CUT TO TIGHTLY FIT EACH PIPE.
2. SIZED AS REQD; SEAL W/ PAINT ALL SIDES.
3. FINSIH PAINT TO MATCH ADJACENT WALL AREAS.
4. FASTEN T WALL W/ FLATHEAD SCREWS.

NOTES:
1. TYP. FOR NON-INSULATED PIPE AND CONDUIT.
2. TYP. FOR MASONRY OR CONCRETE WALL.

1 TYPICAL PIPING PENETRATIONS THRU WALLS
SCALE: NONE



6 TRANSFER AIR DIFFUSER CONNECTION
SCALE: NONE

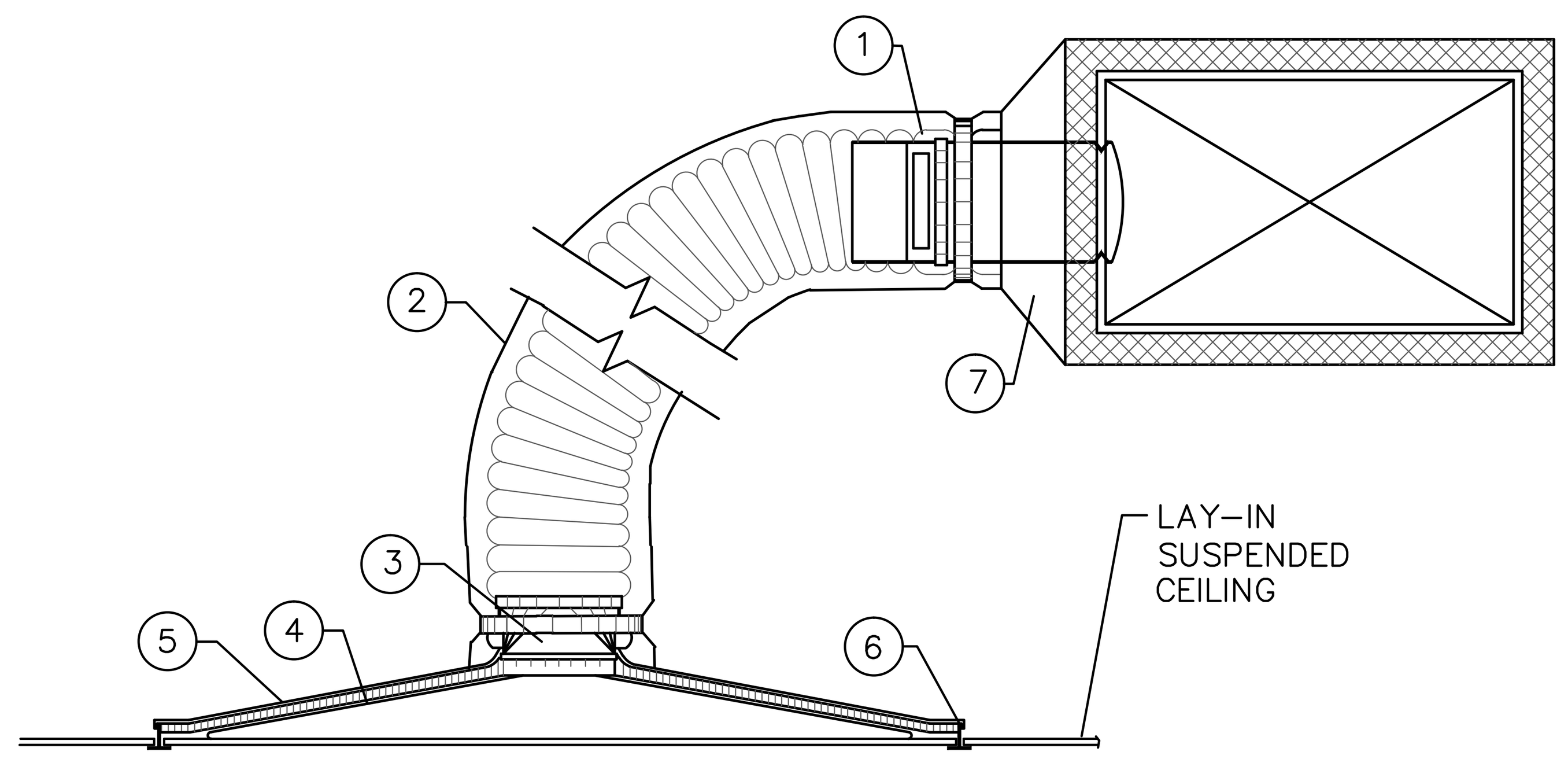


BLOWTHRU:
X = AT LEAST 1" PLUS CASING STATIC PRESSURE IN W.C.
H = AT LEAST 1"

DRAWTHRU:
X = 1/2 of H
H = AT LEAST 1" PLUS CASING STATIC PRESSURE IN W.C.

NOTES:
1. 1"ø MIN PIPE SIZE OR SIZE PER DRAIN TAP IN AHU. INSULATE FOR CONDENSATION CONTROL.
2. DRAIN TO NEAREST FLOOR DRAIN.

5 AHU P-TRAP AND AIR GAP DETAIL
SCALE: NONE

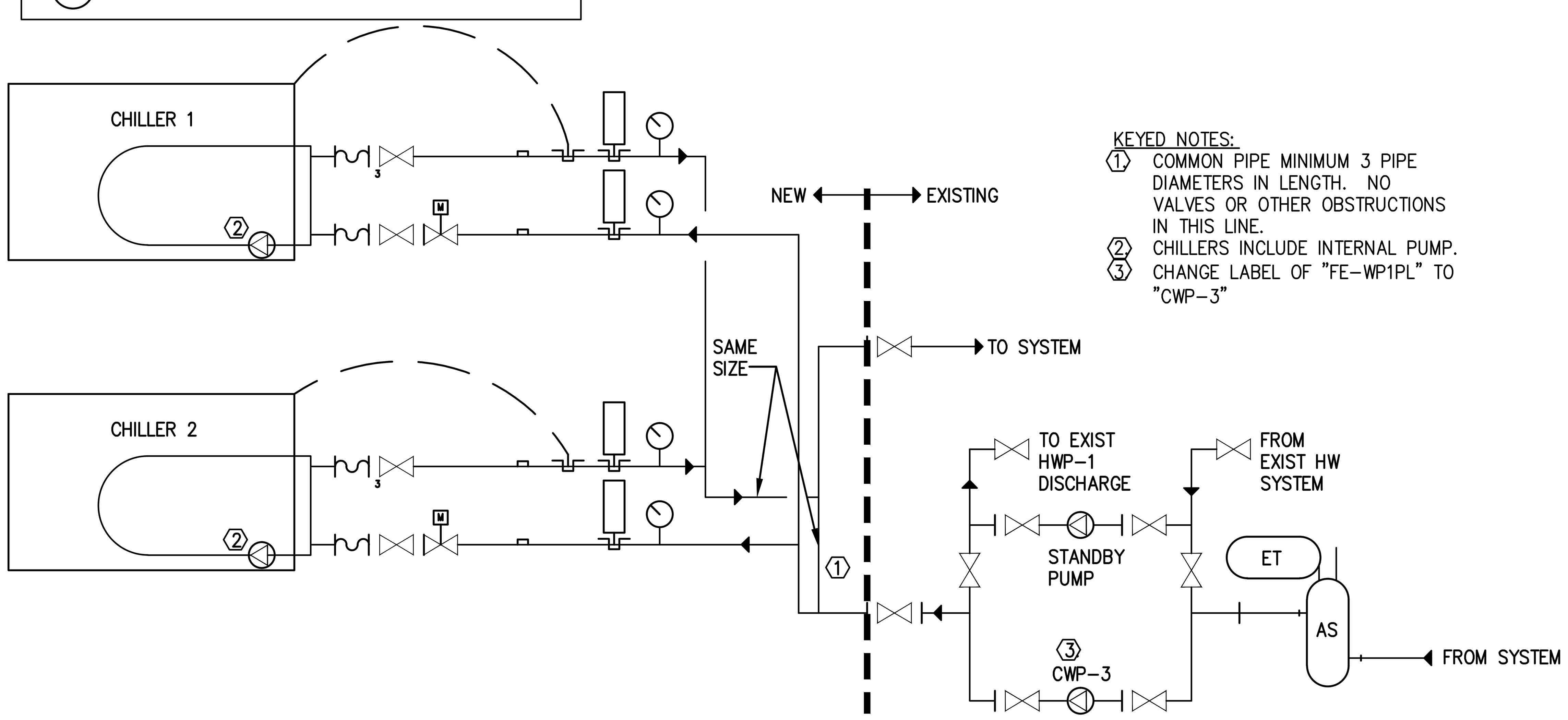


1. SPIN COLLAR TYPE CONNECTOR, EXTERNALLY INSULATED, WITH VOLUME DAMPER AND DAMPER LOCK
2. PRE-INSULATE FLEX DUCT WITH R-8 INSULATION. INSTALLED, PERMANENTLY SEALED AND SUPPORTED TO PREVENT KINKING AND SHARP TURNS. (1) 90° TURN ALLOWED. MAXIMUM FLEX DUCT LENGTH NOT TO EXCEED 6'-0".
3. ROUND TO SQUARE ADAPTER AS REQUIRED
4. LAY-IN-TYPE CEILING DIFFUSER
5. PROVIDE INSULATION TO COMPLETELY COVER DIFFUSER CONE SEAL FOIL TO CONE WITH FIBER REINFORCED FOIL BACKED TAPE
6. T-BAR ARRANGEMENT PER SCHEDULE WITH GRID FURNISHED AND INSTALLED BY OTHERS
7. PROVIDE TRANSITION AS REQUIRED.

4 LAY-IN DIFFUSER WITH FLEXIBLE CONNECTION
SCALE: NONE

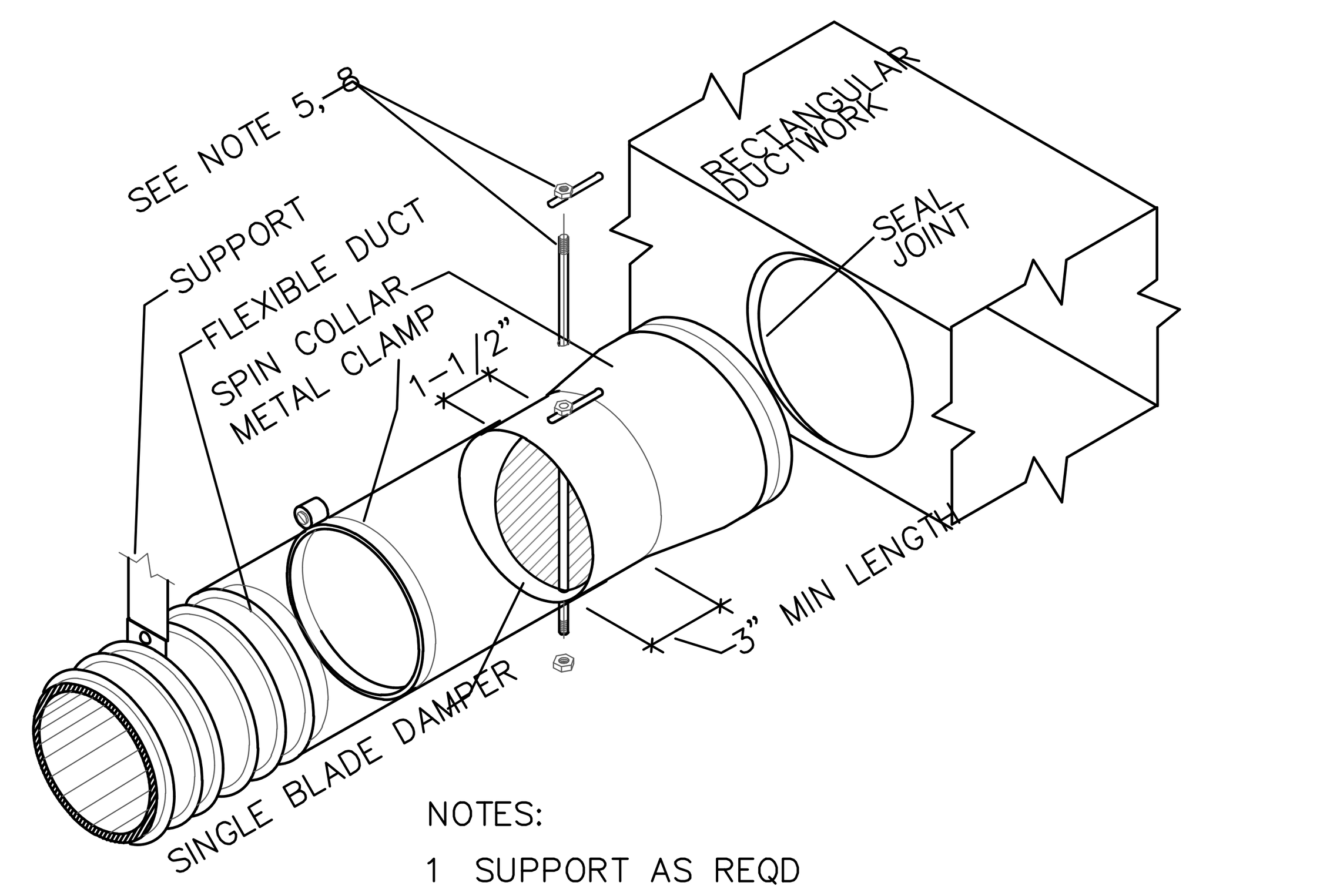
LEGEND:

- VIBRATION ISOLATERS
- TEMP GUAGE IN THERMOWELL
- TEMP SENSOR IN THERMOWELL
- RELEIF VALVE
- PUMP
- BALL VALVE
- AIR SEPARATOR (AS)
- MOTORIZED GATE VALVE
- GATE VALVE
- TRIPLE DUTY VALVE
- P/T PLUG
- UNION
- FLANGE CONNECTION
- PRESSURE GAUGE W/ SHUT-OFF
- EXPANSION TANK (ET)



KEYED NOTES:
1. COMMON PIPE MINIMUM 3 PIPE DIAMETERS IN LENGTH. NO VALVES OR OTHER OBSTRUCTIONS IN THIS LINE.
2. CHILLERS INCLUDE INTERNAL PUMP.
3. CHANGE LABEL OF "FE-WP1PL" TO "CWP-3"

2 CHILLER SCHEMATIC
SCALE: NONE



NOTES:
1 SUPPORT AS REQD
2 BAND FLEX TO COLLAR 1/2" MIN FROM OUTBOARD END OF COLLAR
3 INSTALL SPIN COLLAR DAMPER IN OPEN POSITION; FINAL ADJUSTMENT BY TAB CONTRACTOR
4 PULL FLEXIBLE DUCTWORK INSULATION UP TO END OF SPIN COLLAR AT EDGE OF RECTANGULAR DUCTWORK; SEAL VAPOR BARRIER W/GREY TAPE TO PREVENT MOISTURE MIGRATION
5 PROVIDE EXTENSION RODS TO ACCOMMODATE INSULATION, PULL TO EDGE OF DUCTWORK AS REQD AND SEAL TO EFFECT VAPOR BARRIER
6 POP RIVET OR SHEET METAL SCREWS, MIN 3 EACH AT 120° INTERVALS, CONNECTING STOVEPIPE TO COLLAR. ENSURE RIVETS OR SCREWS DO NOT INTERFERE W/DAMPER
7 TAPE AND SEAL ALL JOINTS TO PREVENT LEAKAGE
8 INSTALL LOCKING QUADRANT AND HANDLE ON BOTTOM OF DUCT FOR EASY SERVICE (SHOWN ON TOP FOR EASE OF ILLUSTRATION ONLY)

3 SPIN COLLAR TO FLEXIBLE DUCT
SCALE: NONE

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04/06/10

STATE OF TEXAS
BRIAN W. BRUMMIT
74740
REGISTERED PROFESSIONAL ENGINEER

Renovation of the
Bryan City Hall Annex
Owner: City of Bryan, P.O. Box 1000, Bryan, Texas 77805

Revisions

Number	Date

Project 0918
APRIL 6, 2010

M3.1

of

ABBREVIATIONS

A

A	AMPS
A/C	AIR CONDITIONING
AC	ALTERNATING CURRENT, AIR COMPRESSOR
ACC	AIR COOLED CHILLER
ACCU	AIR COOLED CONDENSING UNIT
AF	AMPERE FUSE, AMPERE FRAME
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERES INTERRUPTING CURRENT
AL	ALUMINUM
AM	AMMETER
AP	ACCESS PANEL, ALARM PANEL
ARCH	ARCHITECT, ARCHITECTURAL
AS	AMMETER SWITCH
ASC	AMPERES SHORT CIRCUIT
AT	AMPERE TRIP RATING
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE

B

BC	BELOW COUNTER
BKR	BREAKER

C

C	CONDUIT, CELSIUS
CAB	CABINET
CATV	CABLE TELEVISION SYSTEM
CCTV	CLOSED CIRCUIT TELEVISION
CDP	CONDENSER WATER PUMP
CH	CHILLER
CHP	CHILLED WATER PUMP
CIRC	CIRCULATING
CKT	CIRCUIT
CL	CENTERLINE
CLG	CEILING
COL	COLUMN
COMB	COMBINATION
CONN	CONNECTION
CONT	CONTINUOUS, CONTINUATION
CONTR	CONTROLLER, CONTRACTOR
CRAC	COMPUTER ROOM A/C UNIT
CRT	CATHODE RAY TUBE
CT	CURRENT TRANSFORMER, COOLING TOWER
CTR	CENTER
CU	COPPER, CONDENSING UNIT

D

Db	DECIBEL
DC	DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DESIG	DESIGNATION
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DISC	DISCONNECT
DN	DOWN
DP	DISTRIBUTION PANEL
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DW	DISHWASHER
DWH	DOMESTIC WATER HEATER
DWP	DOMESTIC WATER PUMP
DXFC	DX FAN COIL UNIT

E

EA	EACH
EC	ELECTRICAL CONTRACTOR
E.C.	EMPTY CONDUIT
EDF	ELECTRIC DRINKING FOUNTAIN
EF	EXHAUST FAN
EFF	EFFICIENCY
EHC	ELECTRIC HEATING COIL
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMERG	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER
EPO	EMERGENCY POWER OFF
EQ	EQUAL
EQUIP	EQUIPMENT
ETR	EXISTING TO REMAIN
EUH	ELECTRIC UNIT HEATER
EX	EXPLOSION-PROOF
EXH	EXHAUST
EXTG	EXISTING

F

FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FCU	FAN COIL UNIT
FLA	FULL LOAD AMPS
FLR	FLOOR
FP	FIRE PUMP, FAN POWERED
FS	FUSED SWITCH, FLOW SWITCH
FT	FOOT, FEET
FTL	FEED-THRU LUGS
FUT	FUTURE
FVNR	FULL VOLTAGE, NON REVERSING

G

GA	GAGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND

H

H	HUMIDIFIER, HEIGHT
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HTG	HEATING
HTR	HEATER
HUH	HOT WATER/ GAS UNIT HEATER
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HZ	HERTZ

I

IN	INCH
INT	INTERNAL, INTERIOR

J

JB	JUNCTION BOX
JP	JOCKEY PUMP

K

KEC	KITCHEN EQUIPMENT CONTRACTOR
KO	KNOCKOUT
KVA	KILOVOLT-AMPS
KW	KILOWATT
KWH	KILOWATT-HOUR

L

L	LENGTH
LF	LINEAR FEET
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
LV	LOW VOLTAGE

M

M	METER
MAP	MASTER ALARM PANEL
MATV	MASTER ANTENNA TELEVISION SYSTEM
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MH	MANHOLE, METAL HALIDE
MIC	MICROPHONE
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
MSB	MAIN SWITCHBOARD
MTD	MOUNTED
MV	MERCURY VAPOR

N

NAC	NOTIFICATION APPLIANCE CIRCUIT
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION FIRE ASSOCIATION
NF	NON-FUSED
NFS	NON-FUSED SWITCH
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
N.O.	NORMALLY OPEN

O

OAF	OUTSIDE AIR FAN
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPG	OPENING

P

P	POLE, PUMP
PB	PUSHBUTTON
PC	PLUMBING CONTRACTOR
PH	PHASE
	PILOT LIGHT
PNL	PANEL
PR	PAIR
PRI	PRIMARY
PVC	POLYVINYL CHLORIDE
PWR	POWER

Q

QTY	QUANTITY

R

R	RISER
RA	RETURN AIR
RAD	REFRIGERATED AIR DRYER
RAF	RETURN AIR FAN
RAG	RETURN AIR GRILL
RCP	REFLECTED CEILING PLAN
RCPT	RECEPTACLE
RE:	REFERENCE, REFER
RECIRC	RECIRCULATE
REFR	REFRIGERATOR
REINF	REINFORCING
REQD	REQUIRED
REV	REVISION, REVISE
RKVA	RUNNING KILOVOLT-AMPS
RKW	RUNNING KILOWATTS
RLA	RUNNING LOAD AMPS
RM	ROOM, REFRIGERATION MACHINE
RPM	REVOLUTIONS PER MINUTE
RTAH	ROOFTOP AIR HANDLING UNIT
RTU	ROOFTOP UNIT
RVNR	REDUCED-VOLTAGE, NON-REVERSING

S

S	SUPPLY AIR
SAF	SUPPLY AIR FAN
SCR	SILICON CONTROLLED RECTIFIER
SEC	SECONDARY
SF	SQUARE FEET
SKVA	STARTING KILOVOLT-AMPS
SKW	STARTING KILOWATTS
SP	SUMP PUMP
SPF	STAIR PRESSURIZATION FAN
SPKR	SPEAKER
SPDT	SINGLE POLE, DOUBLE THROW
SPST	SINGLE POLE, SINGLE THROW
SQ	SQUARE
SS	START-STOP PUSHBUTTON
SSSC	SOLID STATE SPEED CONTROL
STB	STEAM BOILER
STD	STANDARD
STL	STEEL
SW	SWITCH
SWBD	SWITCHBOARD

T

TEL	TELEPHONE
TL	TWIST-LOCK
TB	TELEPHONE TERMINAL BOARD
TTC	TELEPHONE TERMINAL CABINET
TU	TERMINAL UNIT
TV	TELEVISION

U

UG	UNDERGROUND
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTABLE POWER SYSTEM

V

V	VOLT
VA	VOLT-AMPERE
VM	VOLT METER
VS	VOLT METER SWITCH

W

W	WATT, WIDTH, WIRE
W/	WITH
W/O	WITHOUT
WHDM	WATT-HOUR DEMAND METER
WHM	WATT-HOUR METER
WP	WEATHERPROOF
WT	WATERTIGHT, WEIGHT

X

XFMR	TRANSFORMER

Z

Z	ZONE

ELECTRICAL SYMBOLS (ALL SYMBOLS ARE NOT NECESSARILY USED ON THE DRAWINGS)

LIGHTING

- A, B — INCANDESCENT OR HID LIGHTING FIXTURE, LETTER DENOTES TYPE.
- X — EXIT SIGN, ARROWS AS INDICATED, LETTER DENOTES TYPE
- A — FLUORESCENT LIGHTING FIXTURE, LETTER DENOTES TYPE.
- LIGHT FIXTURE ON EMERGENCY OR LIFE SAFETY CIRCUIT
- LIGHT FIXTURE ON CRITICAL BRANCH CIRCUIT
- SITE LIGHTING FIXTURE, LETTER DENOTES TYPE

SWITCHES

- $ — SWITCH: SPST, 20A, 120/277V
- $K — SWITCH: SPST, 20A, 120/277V. "K" DENOTES KEY SWITCH, "P" DENOTES PILOT LIGHT, "T" DENOTES SPRING WOUND TIMER
- $D — DIMMER CONTROL SWITCH, 600 WATT U.N.O.
- $D — SWITCH WITH DIMMER CONTROL – AS NOTED OR SPECIFIED
- $M — MOTOR RATED SWITCH
- $OS — OCCUPANCY SENSOR SWITCH – AS NOTED OR SPECIFIED
- $3 — SWITCH: 20A, 120/277V, "2" DENOTES DPST, "3" DENOTES THREE-WAY, "4" DENOTES FOUR-WAY
- $MC — SWITCH: SPOT, CENTER OFF, MOMENTARY CONTACT

RECEPTACLES AND OUTLETS

- SIMPLEX WALL RECEPTACLE, NEMA 5-20R, 20A, 120 VOLT
- DUPLEX WALL RECEPTACLE, NEMA 5-15R, 15A, 125V OR NEMA 5-20R, 20A, 125V.
  - GFI — GROUND FAULT INTERRUPT PROTECTED RECEPTACLE
  - WP — WEATHERPROOF WHILE IN USE, COVER
  - C — MOUNTED 6" ABOVE COUNTER
  - UC — MOUNTED UNDER COUNTER
  - 48 — MOUNTED 48" ABOVE FINISHED FLOOR
  - 18 — MOUNTED 18" ABOVE FINISHED FLOOR
  - IG — ISOLATED GROUND RECEPTACLE USE DIFFERENT COLOR RECEPTACLES
- FLOOR OUTLET
- PEDESTAL FLOOR OUTLET
- CEILING OUTLET
- FOUR PLEX 120 VOLT RECEPTACLE
- MULTI-OUTLET SURFACE RACEWAY
- J — JUNCTION BOX
- P — PULL BOX (OVER 4" SQUARE)
- COMBINATION PHONE/DATA DUPLEX OUTLET INSTALL CONDUIT W/ PULL WIRE & STUB UP 12" ABOVE TOP OF WALL
- TELEPHONE WALL OUTLET
- DIRECT CONNECTION TO EQUIPMENT
- TV — CABLE OUTLET
- XX — 250 VOLT RECEPTACLE XX = AMPERAGE

FIREWALL LEGEND

- 1-HR FIREWALL
- 2-HR FIREWALL
- 3-HR FIREWALL
- 4-HR FIREWALL

ELECTRICAL EQUIPMENT

- DISTRIBUTION PANEL
- SWITCHBOARD OR MOTOR CONTROL CENTER
- PANELBOARD (FLUSH/SURFACE MOUNT)
- DRY-TYPE TRANSFORMER
- ATS — AUTOMATIC TRANSFER SWITCH
- PLYWOOD TERMINAL BOARD, TYPE AS NOTED, 4'x8'x¾" U.N.O.
- TERMINAL CABINET (FLUSH/SURFACE MOUNT), TYPE AS NOTED, 24'x48'x3½" U.N.O.
- BAT — BATTERY/INVERTER UNIT

MOTORS AND CONTROLS

- SINGLE OR THREE PHASE MOTOR
- ELECTRIC DUCT HEATER
- DISCONNECT (SAFETY) SWITCH "200/3/150" DENOTES AMPERES/POLE/FUSE, "NF" DENOTES NON-FUSED
- B — ENCLOSED CIRCUIT BREAKER
- MOTOR STARTER
- COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER "30/3/15/*0" DENOTES AMPERES/POLE/FUSE/STARTER SIZE, "NF" DENOTES NON-FUSED
- M — MANUAL MOTOR STARTING WITH TERMINAL OVERLOAD
- T — MOTOR-RATED TOGGLE SWITCH
- C — LIGHTING CONTRACTOR
- TS, TC — TIME SWITCH, TIME CLOCK
- PC, PC — PHOTOCELL
- PUSH BUTTON
- DC — DOOR CONTACT SWITCH

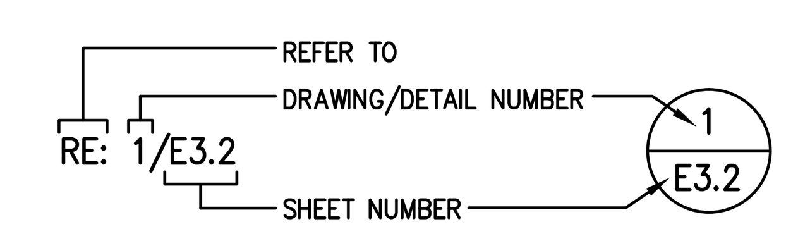
INTERCOM AND PUBLIC ADDRESS SYSTEM

- INTERCOM CONSOLE
- INTERCOM SPEAKER
- S — HOME RUN CIRCUIT TO THE CONSOLE
- SPEAKER VOLUME CONTROL
- S — WALL MOUNTED INTERCOM SPEAKER
- M — FLOOR MICROPHONE OUTLET
- M — WALL MICROPHONE OUTLET
- S — PA SYSTEM SPEAKER SPEAKER
- AMP — PA SYSTEM AMPLIFIER

FIRE ALARM

- AUDIBLE NOTIFICATION APPLIANCE
- # — COMBINATION AUDIBLE & VISIBLE NOTIFICATION APPLIANCE
  - # CANDELA NEEDED
  - CM CEILING MOUNTED
- # — VISIBLE NOTIFICATION APPLIANCE
  - # CANDELA NEEDED
  - CM CEILING MOUNTED
- # V — COMBINATION VOICE & VISIBLE NOTIFICATION APPLIANCE
  - # CANDELA NEEDED
  - CM CEILING MOUNTED
- W — VANE TYPE WATERFLOW ALARM INITIATING DEVICE
- T — TAMPER SWITCH
- DOOR HOLDER
- F — MANUAL FIRE ALARM BOX
- FACP — FIRE ALARM CONTROL PANEL
- X — PHOTOELECTRIC SMOKE DETECTOR
  - WM= WALL MOUNTED
- B — BELL OR GONG
- H, R/F — HEAT DETECTOR – COMBINATION FIXED TEMPERATURE AND RATE OF RISE
- BT — SMOKE DETECTOR – PROJECTED BEAM TRANSMITTER
- BR — SMOKE DETECTOR – PROJECTED BEAM RECEIVER
- AP — ANNUNCIATOR
- DSD — DUCT SMOKE DETECTOR

DRAWING/DETAIL REFERENCE KEY



DRAWING LIST

CIRCUITING AND WIRING

- CIRCUIT CONCEALED IN WALL OR CEILING
- LV — LOW VOLTAGE WIRING
- E — OVERHEAD WIRING
- UNDERGROUND CONDUIT/DUCTBANK

GENERAL NOTES

GENERAL NOTES

A. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR THE EXACT LOCATION OF ALL CEILING MOUNTED DEVICES.
B. REFER TO ARCHITECTURAL INTERIOR ELEVATION DRAWINGS, WHERE THE ARCHITECT HAS DRAWN SUCH ELEVATIONS, FOR THE LOCATIONS OF ALL WALL MOUNTED DEVICES.
C. COORDINATE EXACT LOCATION OF ALL LIGHTING FIXTURES IN MECHANICAL/ELECTRICAL SPACES WITH EQUIPMENT, DUCTWORK AND PIPING.
D. ALL WIRING SHALL BE (3)#12,THWN/THHN COPPER ¾"C. UNLESS NOTED OTHERWISE FOR POWER AND LIGHTING APPLICATION.
E. MINIMUM SIZE CONDUIT FOR CONTROL WIRING SHALL BE 1/2"
F. WHEN APPLICABLE, ALL CONDUIT PENETRATIONS THRU THE ROOF TO SERVE MECHANICAL EQUIPMENT SHALL BE WITHIN THE ASSOCIATED EQUIPMENT ROOF CURB. COORDINATE LOCATIONS OF PENETRATIONS WITH THE MECHANICAL CONTRACTOR.
G. WHEN APPLICABLE, COORDINATE ALL SLAB PENETRATIONS AND SLEEVES WITH THE GENERAL CONTRACTOR PRIOR TO EACH CONCRETE POUR.
H. WHEN APPLICABLE, FURNISH ACCESS DOORS FOR INSTALLATION BY THE GENERAL CONTRACTOR IN WALLS AND CEILINGS WHERE ACCESS IS REQUIRED TO CONCEALED ELECTRICAL BOXES AND DEVICES.

LIGHTING FIXTURE CIRCUITING NOTES:

A. THE LIGHTING PLANS INDICATE SWITCHING AND BRANCH CIRCUIT NUMBERS FOR ALL LIGHTING FIXTURES. LOWER CASE LETTERS AT SWITCHES AND LIGHT FIXTURES INDICATE SWITCHING WHERE THE CONTROL PATTERN IS NOT OBVIOUS. INSTALL BRANCH CIRCUIT WIRING IN RACEWAYS AS REQUIRED TO PROVIDE THE SWITCHING AND CIRCUITING AS SHOWN ON THE DRAWINGS.
B. BRANCH CIRCUIT HOMERUNS SHALL BE LIMITED TO THREE PHASE CONDUCTORS (ON DIFFERENT PHASES), ONE NEUTRAL CONDUCTOR AND ONE EQUIPMENT GROUND CONDUCTOR INSTALLED IN CONDUIT.
C. WHERE ALLOWED BY THE LOCAL AUTHORITY HAVING JURISDICTION, ARMORED CABLE (BX) MAY BE USED FOR LAY-IN FIXTURE PIGTAILS AND SWITCH LEG DROPS. ARMORED CABLE (BX) SHALL NOT BE USED FOR BRANCH CIRCUIT HOMERUNS. ARMORED CABLE (BX) SHALL NOT BE USED WHERE MORE THAN THREE CONDUCTORS (PHASE/NEUTRAL/GROUND) ARE REQUIRED, WHERE EXPOSED; OR IN LENGTHS EXCEEDING 20 FEET.

POWER PLAN CIRCUITING NOTES:

A. THE POWER PLANS INDICATE BRANCH CIRCUITS FOR ALL RECEPTACLES. INSTALL BRANCH CIRCUIT WIRING IN RACEWAYS, AS REQUIRED TO PROVIDE CIRCUITING AS SHOWN ON THE DRAWINGS.
B. BRANCH CIRCUIT HOMERUNS SHALL BE LIMITED TO THREE PHASE CONDUCTORS (ON DIFFERENT PHASES), ONE NEUTRAL CONDUCTOR AND ONE EQUIPMENT GROUND CONDUCTOR INSTALLED IN CONDUIT. ISOLATED GROUND CIRCUITS SHOULD CONTAIN AN ADDITIONAL "ISOLATED GROUNDING CONDUCTOR."
C. WHERE ALLOWED BY THE LOCAL AUTHORITY HAVING JURISDICTION, ARMORED CABLE (BX) MAY BE USED FOR DROP IN PARTITIONS TO RECEPTACLES AND FOR SINGLE CIRCUIT BRANCH CIRCUIT WIRING FROM RECEPTACLE TO RECEPTACLE. ARMORED CABLE (BX) SHALL NOT BE USED FOR BRANCH CIRCUIT HOMERUNS. ARMORED CABLE (BX) SHALL NOT BE USED WHERE MORE THAN THREE CONDUCTORS (PHASE/NEUTRAL/GROUND) ARE REQUIRED, WHERE EXPOSED; OR IN LENGTHS EXCEEDING 20 FEET.

LIGHTING FIXTURE SCHEDULE

SYMBOL	MANUFACTURER	CATALOG #	LAMPS #	LAMPS TYPE	VOLTAGE	MOUNTING	REMARKS
A	LITHONIA LIGHTING	2PM3N-GB332-18LD-MVOLT-GE10IS	3	F32T8/SPX35/ECO	MVOLT	RECESSED	2x4 PARABOLIC LAY-IN
AE	LITHONIA LIGHTING	2PM3N-GB332-18LD-MVOLT-GE10IS-EL	3	F32T8/SPX35/ECO	MVOLT	RECESSED	2x4 PARABOLIC LAY-IN WITH BATTERY BACKUP
B	LITHONIA LIGHTING	2GT8-232-A12125-MVOLT-GEB10IS	2	F32T8/SPX35/ECO	MVOLT	RECESSED	2x4 PRISMATIC LAY-IN
BE	LITHONIA LIGHTING	2GT8-232-A12125-MVOLT-GEB10IS-EL	2	F32T8/SPX35/ECO	MVOLT	RECESSED	2x4 PRISMATIC LAY-IN WITH BATTERY BACKUP
B1	LITHONIA LIGHTING	GT8-332-A12125-MVOLT-GEB10IS	3	F32T8/SPX35/ECO	MVOLT	RECESSED	1x4 PRISMATIC LAY-IN
D	LITHONIA LIGHTING	LP6F-42TRT-MVOLT-607AZ	1	F42TBX/835/A/ECO	MVOLT	RECESSED	COMPACT FLUORESCENT DOWNLIGHT
E	JUNO LIGHTING GROUP	Alfa-P45-MP-S3-STN-AMB	1	F13/GU24/CF	120	PENDANT	COMPACT FLUORESCENT PENDANT LIGHT
F	SPECTRUM LIGHTING	SPRM6MH-100-EX-6410CL	1	100W/MH	120/277	RECESSED	HID RETROFIT DOWNLIGHT, VERIFY EXISTING APERATURE SIZE PRIOR TO ORDERING
G	LITHONIA LIGHTING	WC232-MVOLT-GEB10IS	2	F32T8/SPX35/ECO	MVOLT	WALL	4'-0" FLUORESCENT WALL BRACKET
G1	LITHONIA LIGHTING	WC225-MVOLT-GEB10IS	2	F32T8/SPX35/ECO	MVOLT	WALL	3'-0" FLUORESCENT WALL BRACKET
H	LITHONIA LIGHTING	C232-MVOLT-GEB10IS-WGCUN	2	F32T8/SPX35/ECO	MVOLT	CHAIN	4' FLUORESCENT STRIP WITH WIRE GUARD
K	EXISTING TO BE RELOCATED						
X1	LITHONIA LIGHTING	LQM-SWIR-120/277-ELN	–	LED	120/277	UNIVERSAL	SINGLE FACE LED EXIT SIGN
X2	LITHONIA LIGHTING	LQM-SW3R-120/277-ELN	–	LED	120/277	UNIVERSAL	DOUBLE FACE LED EXIT SIGN

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04-05-10

Renovation of the
Bryan City Hall Annex
Owner: City of Bryan, P.O. Box 1000, Bryan, Texas 77805

Revisions	
Number	Date

Project 0918
APRIL 6, 2010

E1.0

of

KEYED NOTES:

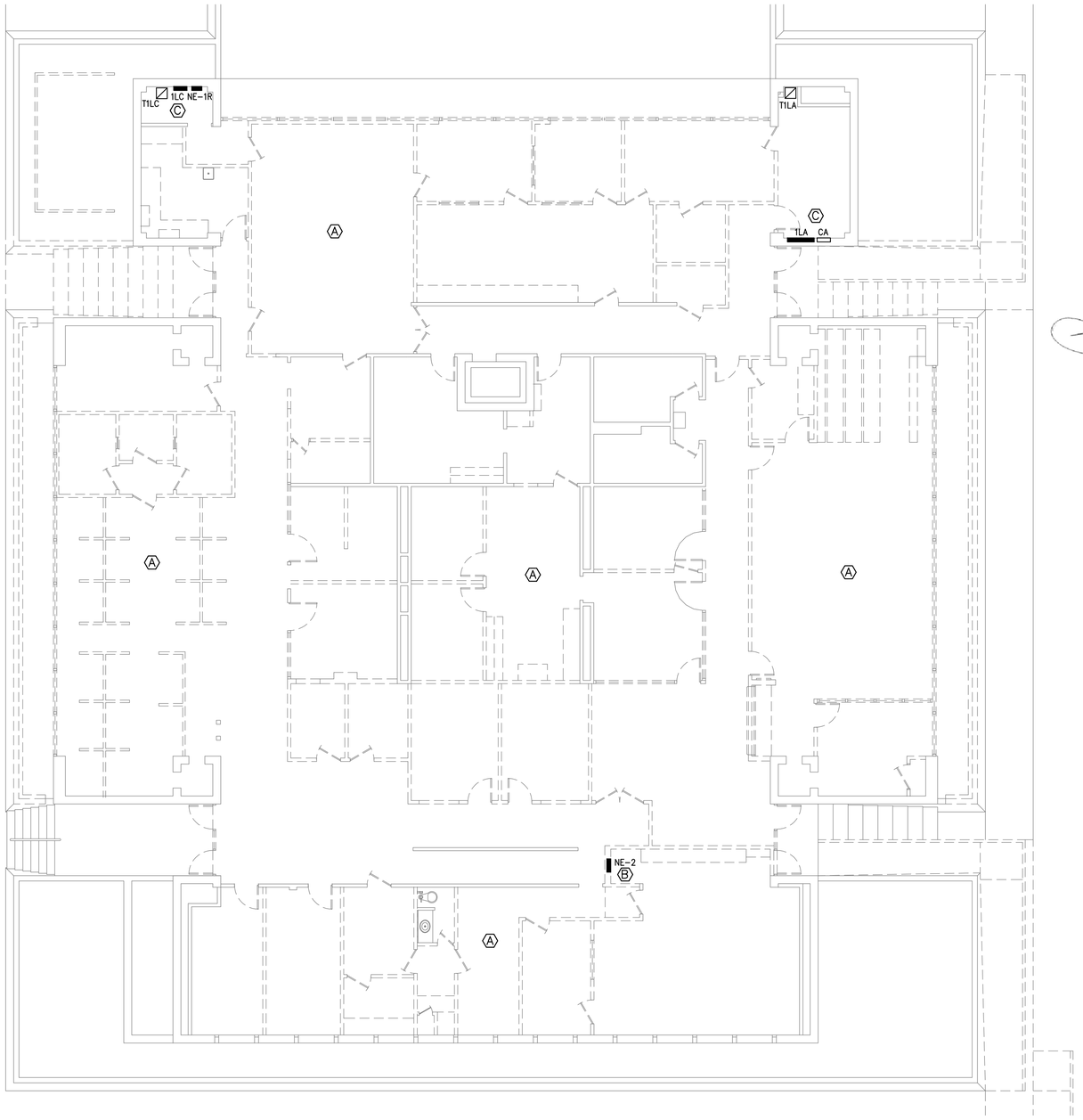
Ⓐ REMOVE ALL WIRING DEVICES, RACEWAYS AND WIRING IN WALLS AND RAISED FLOORS TO BE DEMOLISHED. MAINTAIN EXISTING CIRCUITS FOR REUSE AND THE CIRCUIT INTEGRITY TO DEVICES TO REMAIN.

Ⓑ EXISTING PANEL NE-2 TO BE REMOVED ALONG WITH ALL ITS ASSOCIATED RACEWAYS AND WIRING AND SUSPENDED TRANSFORMER.

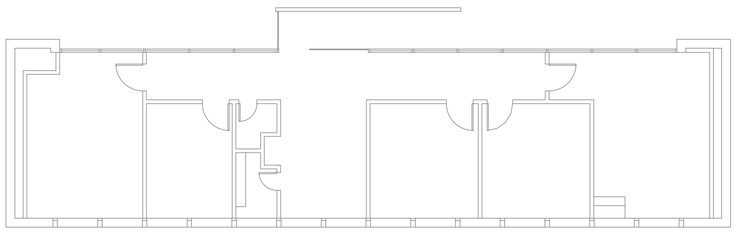
Ⓒ EXISTING ELECTRICAL GEAR TO REMAIN.

NOTES:

1. SEE E1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.
2. REFER TO THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.
3. EXISTING ELECTRICAL GEAR TO REMAIN FOR RE-USE. REMOVE CIRCUIT WIRING AND RACEWAYS IN AREAS OF DEMOLITION BACK TO THE NEAREST OVERHEAD J-BOX OR BACK TO THE PANEL OF ITS ORIGIN.
4. REMOVE THE ENTIRE FIRE ALARM SYSTEM TO INCLUDE ALL DETECTORS, PULL STATIONS, HORNS, STROBES, RACEWAYS AND WIRING AND THE FIRE ALARM CONTROL PANEL.
5. OWNER TO REMOVE OR TIE OFF EXISTING DATA/COMMUNICATION WIRING AND CABLES FOR REUSE. CONTRACTOR TO COORDINATE ANY REMOVAL OF RACEWAYS AND WIRING WITH THE OWNER.



1 ELECTRICAL DEMO – FIRST FLOOR
SCALE: 1/8"=1'



2 ELECTRICAL DEMO – MEZZANINE FLOOR
SCALE: 1/8"=1'

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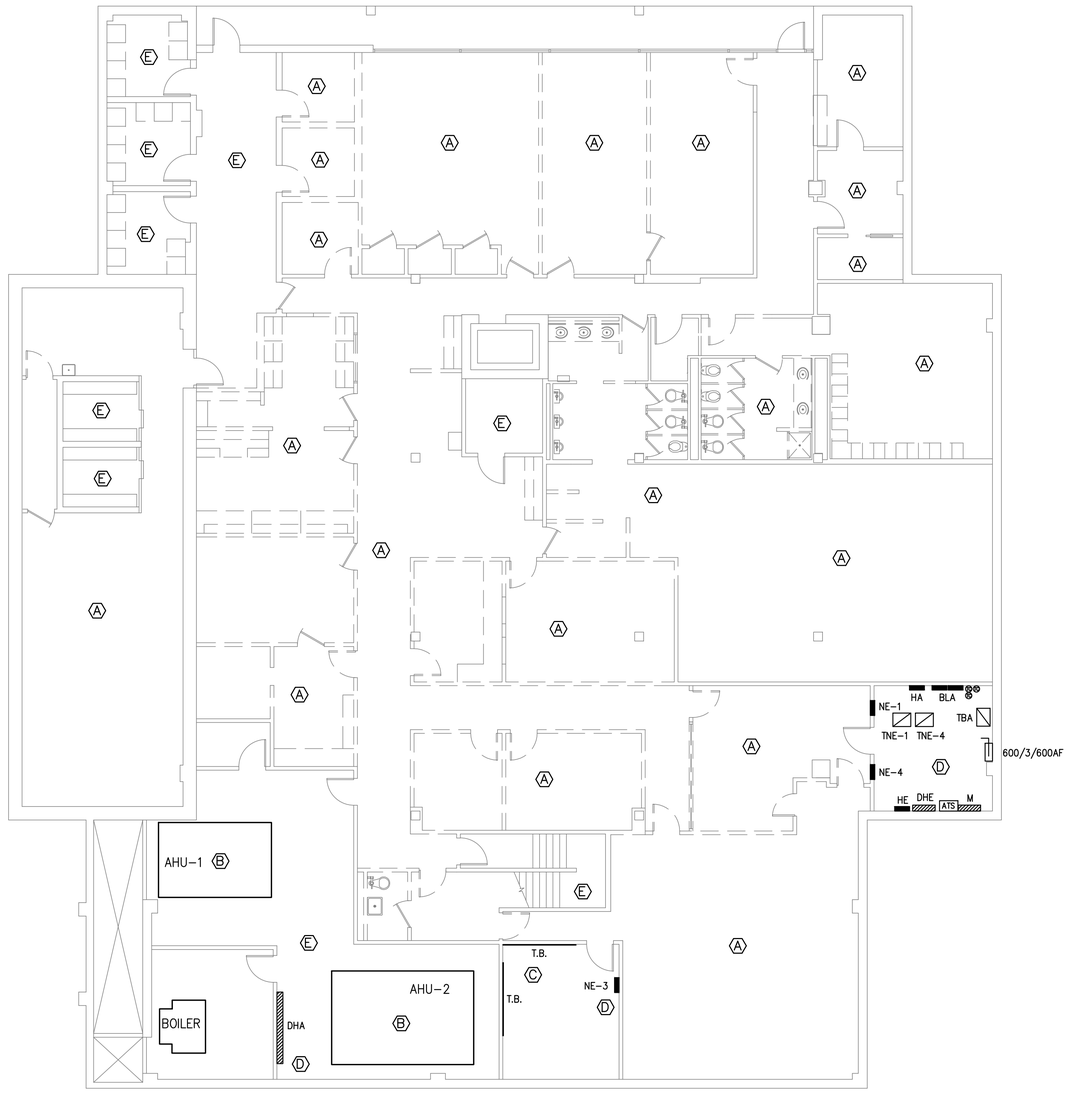
NOTES:

1. SEE E1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.
2. REFER TO THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.
3. EXISTING ELECTRICAL GEAR TO REMAIN FOR RE-USE. REMOVE CIRCUIT WIRING AND RACEWAYS IN AREAS OF DEMOLITION BACK TO THE NEAREST OVERHEAD J-BOX OR BACK TO THE PANEL OF ITS ORIGIN.
4. REMOVE THE ENTIRE FIRE ALARM SYSTEM TO INCLUDE ALL DETECTORS, PULL STATIONS, HORNS, STROBES, RACEWAYS AND WIRING AND THE FIRE ALARM CONTROL PANEL.
5. OWNER TO REMOVE OR TIE OFF EXISTING DATA/COMMUNICATION WIRING AND CABLES FOR REUSE. CONTRACTOR TO COORDINATE ANY REMOVAL OF RACEWAYS AND WIRING WITH THE OWNER.

KEYED NOTES:

- (A) REMOVE ALL LIGHTING IN THESE AREAS AND REMOVE ALL WIRING DEVICES, RACEWAYS AND WIRING IN WALLS TO BE DEMOLISHED. MAINTAIN EXISTING CIRCUITS FOR REUSE AND THE CIRCUIT INTEGRITY TO DEVICES TO REMAIN.
- (B) EXISTING AIR HANDLING UNIT TO BE REPLACED. DISCONNECT THE EXISTING WIRING AND REFER TO E2.2 FOR INFORMATION ON CONNECTING THE REPLACEMENT AHU.
- (C) EXISTING TELEPHONE BOARDS AND MAIN DEMARC TO REMAIN. COORDINATE REMOVAL OF EXISTING TELEPHONE AND DATA WIRING TO THE AREAS OF RENOVATION WITH THE OWNER.
- (D) EXISTING ELECTRICAL GEAR TO REMAIN.
- (E) EXISTING TO REMAIN.



1 DEMO PLAN - BASEMENT
SCALE: 1/8"=1'

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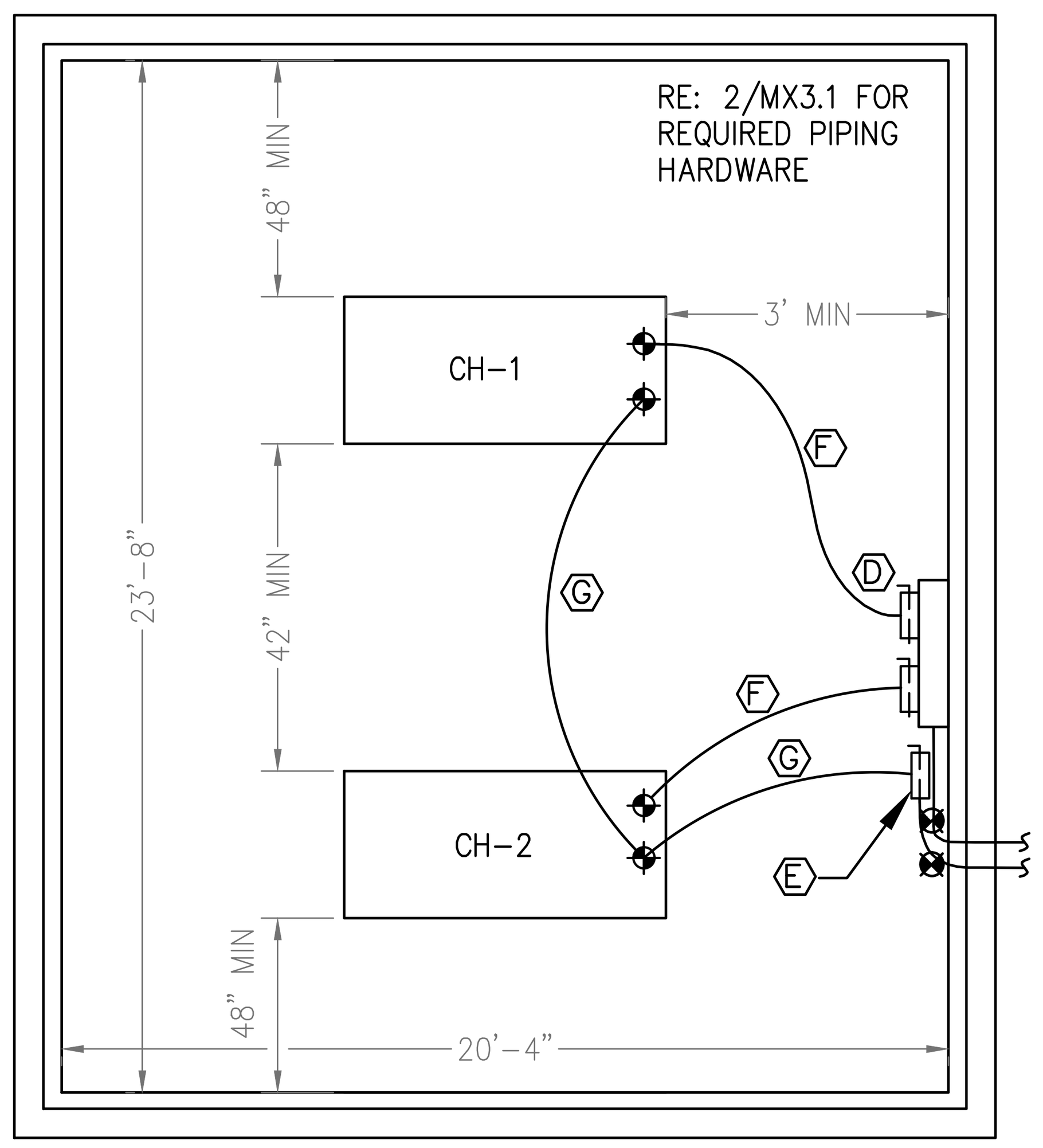
KEYED NOTES:

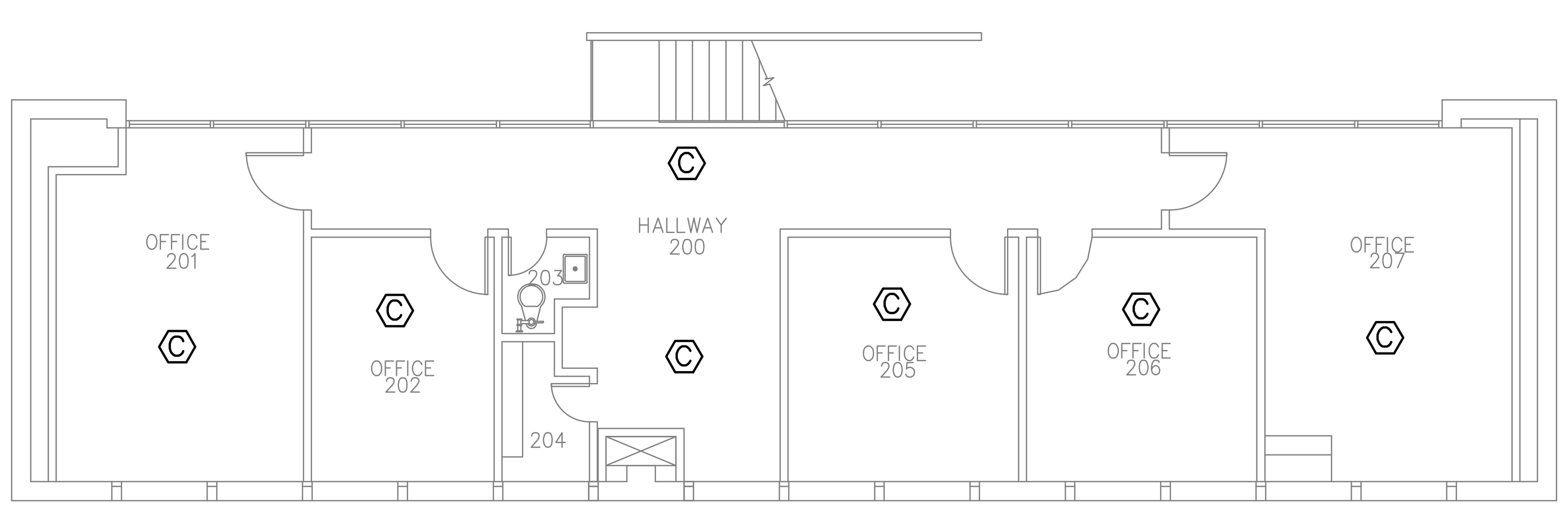
- (A) MAINTAIN EXISTING.
- (B) EXISTING RECEPTACLE TO BE REUSED AS NEEDED. TYPICAL OF ALL RECEPTACLES WITH "E" SUBSCRIPT.
- (C) MAINTAIN THE EXISTING POWER AND TELEPHONE CIRCUITS TO THE EXISTING MEZZANINE OFFICES.
- (D) REPLACE THE EXISTING 400 AMP DISCONNECT WITH A WIRE GUTTER AND TWO 100 AMP 3-POLE, 90 AMP FUSE, NEMA-3R DISCONNECTS, ONE FOR EACH CHILLER. MAINTAIN THE EXISTING FEEDER.
- (E) EXISTING 30 AMP CONTROLS DISCONNECT TO REMAIN.
- (F) EXTEND A NEW CIRCUIT OF 3 #2 CONDUCTORS WITH A #8 GROUND IN A 1¼" CONDUIT FROM THE NEW 100 AMP CHILLER DISCONNECT TO THE CHILLER.
- (G) EXTEND A 120 VOLT CONTROL CIRCUIT OF 3 #10 CONDUCTORS WITH A #10 GROUND IN A ¾" CONDUIT TO EACH CHILLER.
- (H) PROVIDE CONDUIT AND BOX AT OFFICE ENTRANCES FOR CARD SCANNERS (MOUNTING HEIGHT SHOULD ALLOW USERS SWIPE CARD/BADGE FROM A NECK LANYARD).
- (K) COORDINATE INSTALLATION OF THE OWNER FURNISHED UPS WITH THE CITY IT OR FACILITY SERVICES DEPARTMENT. PROVIDE TWO 20 AMP CIRCUITS FROM THE UPS TO THE HVAC AND ACCESS CONTROL CABINETS. ONE CABINET TO BE LOCATED IN THE BASEMENT COMM ROOM AND ONE IN THE FIRST FLOOR DATA ROOM.
- (L) COORDINATE THE EXACT LOCATION FOR THE OVERHEAD CEILING RECEPTACLE WITH THE ARCHITECT.
- (M) PROVIDE ALTERNATE BID NO. 3 TO RELOCATE TRANSFORMER "T1LA" AND ITS ASSOCIATED DISCONNECT AND FEEDERS TO ELECTRICAL ROOM 126.

NOTES:

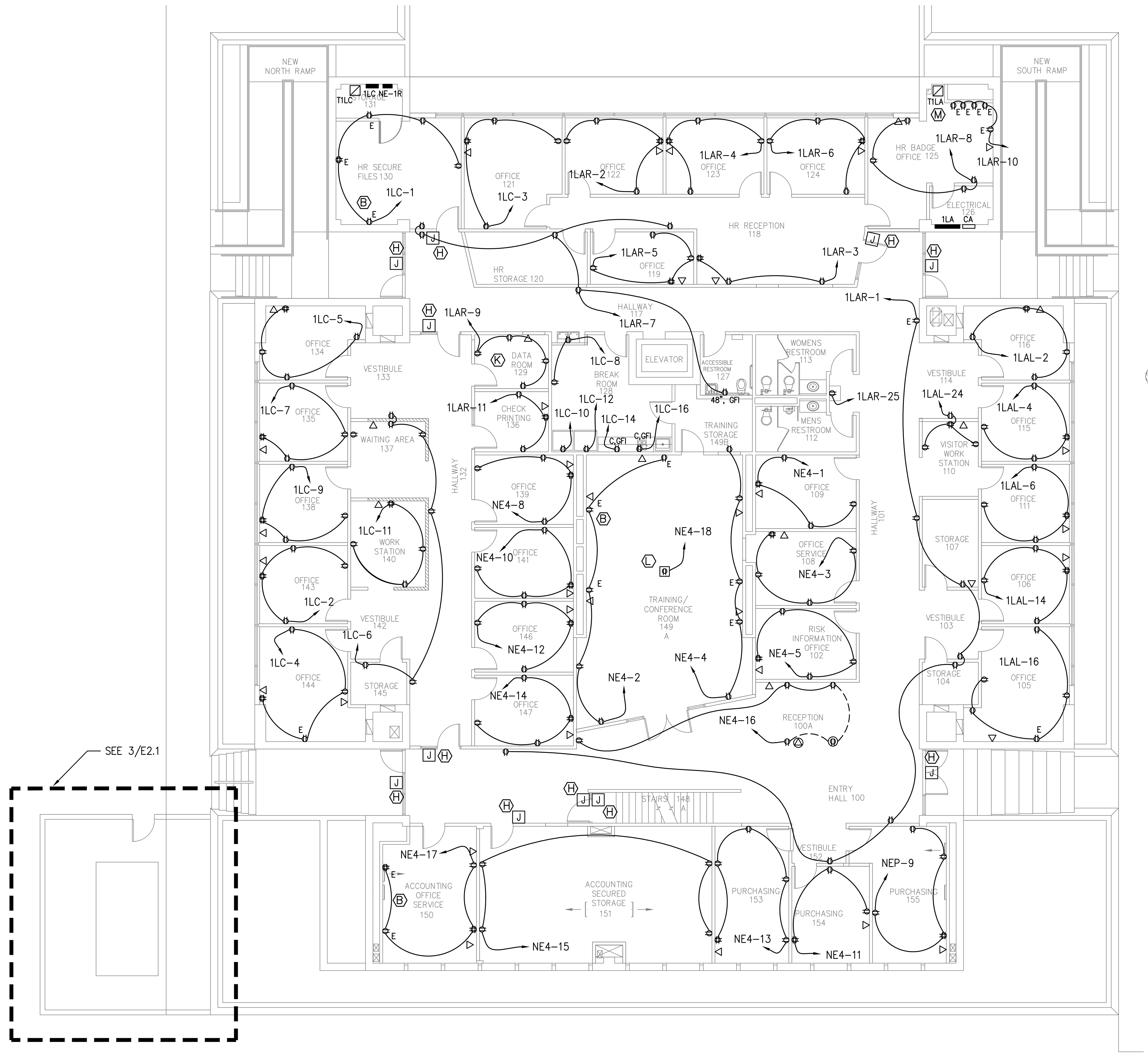
1. SEE E1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.
2. CONTRACTOR TO PROVIDE AN EMPTY RACEWAY SYSTEM WITH OUTLET BOXES FOR THE OWNER'S VOICE AND DATA SYSTEM. OWNER TO PULL WIRE AND INSTALL JACKS.
3. EXTEND POWER FROM THE NEAREST RECEPTACLE CIRCUIT TO THE DOOR POWER SUPPLIES FOR THOSE DOORS PROVIDED WITH PANIC HARDWARE AND ELECTRIC STRIKES/MAGLOCKS.



3 MECHANICAL COURT YARD ELICTRICAL PLAN
SCALE: 1/4"=1'



2 POWER PLAN - MEZZANINE FLOOR
SCALE: 1/8"=1'



1 POWER PLAN - FIRST FLOOR
SCALE: 1/8"=1'

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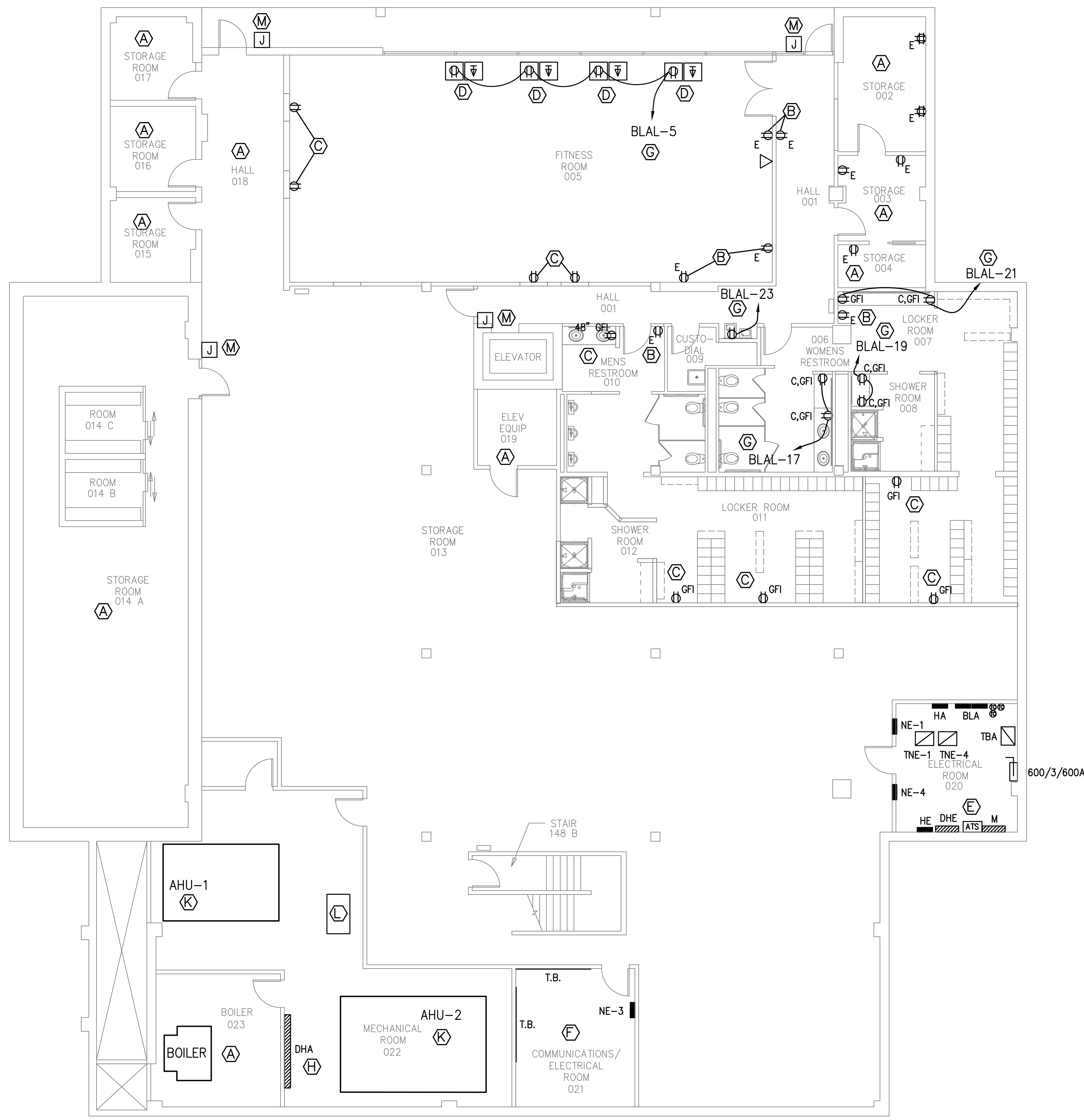

1 **POWER PLAN – BASEMENT – BASE BID**
SCALE: 1/8"=1'

NOTES:

1. SEE E1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.
2. CONTRACTOR TO PROVIDE AN EMPTY RACEWAY SYSTEM WITH OUTLET BOXES FOR THE OWNER'S VOICE AND DATA SYSTEM. OWNER TO PULL WIRE AND INSTALL JACKS.
3. EXTEND POWER FROM THE NEAREST RECEPTACLE CIRCUIT TO THE DOOR POWER SUPPLIES FOR THOSE DOORS PROVIDED WITH PANIC HARDWARE AND ELECTRIC STRIKES/MAGLOCKS.

KEYED NOTES:

- (A) MAINTAIN EXISTING.
- (B) EXISTING RECEPTACLE TO BE REUSED, MAINTAIN EXISTING CIRCUIT. TYPICAL OF ALL RECEPTACLES WITH "E" SUBSCRIPT.
- (C) TIE NEW RECEPTACLE INTO THE NEAREST RECEPTACLE CIRCUIT.
- (D) PROVIDE A CEILING MOUNTED RECEPTACLE AND TV OUTLET CONNECTED TO THE EXISTING TV SYSTEM.
- (E) EXISTING ELECTRICAL GEAR TO REMAIN. REUSE AND MODIFY AS NEEDED TO ACCOMPLISH THESE RENOVATIONS.
- (F) EXISTING TELEPHONE BOARDS AND MAIN DEMARC TO REMAIN. COORDINATE INSTALLATION OF THE OWNER FURNISHED UPS WITH THE CITY IT OR FACILITY SERVICES DEPARTMENT. PROVIDE TWO 20 AMP CIRCUITS FROM THE UPS TO THE HVAC AND ACCESS CONTROL CABINETS. ONE CABINET TO BE LOCATED IN THE BASEMENT COMM ROOM AND ONE IN THE FIRST FLOOR DATA ROOM.
- (G) ROUTE A 20 AMP, 120 VOLT CIRCUIT TO THE SPARE BREAKER INDICATED.
- (H) EXISTING PANEL DHA TO REMAIN. REPLACE THE EXISTING SIZE 2 STARTER TO AHU-2. RE: 1/E4.0.
- (K) EXISTING AHU TO BE REPLACED BY THE MECHANICAL CONTRACTOR. DISCONNECT THE EXISTING ELECTRICAL CIRCUIT AND RECONNECT CIRCUIT TO THE REPLACEMENT UNIT.
- (L) EXISTING CWP TO BE REPLACED BY THE MECHANICAL CONTRACTOR. DISCONNECT THE EXISTING ELECTRICAL CIRCUIT AND RECONNECT CIRCUIT TO THE REPLACEMENT UNIT.
- (M) PROVIDE CONDUIT AND BOX AT OFFICE ENTRANCES FOR CARD SCANNERS (MOUNTING HEIGHT SHOULD ALLOW USERS SWIPE CARD/BADGE FROM A NECK LANYARD).

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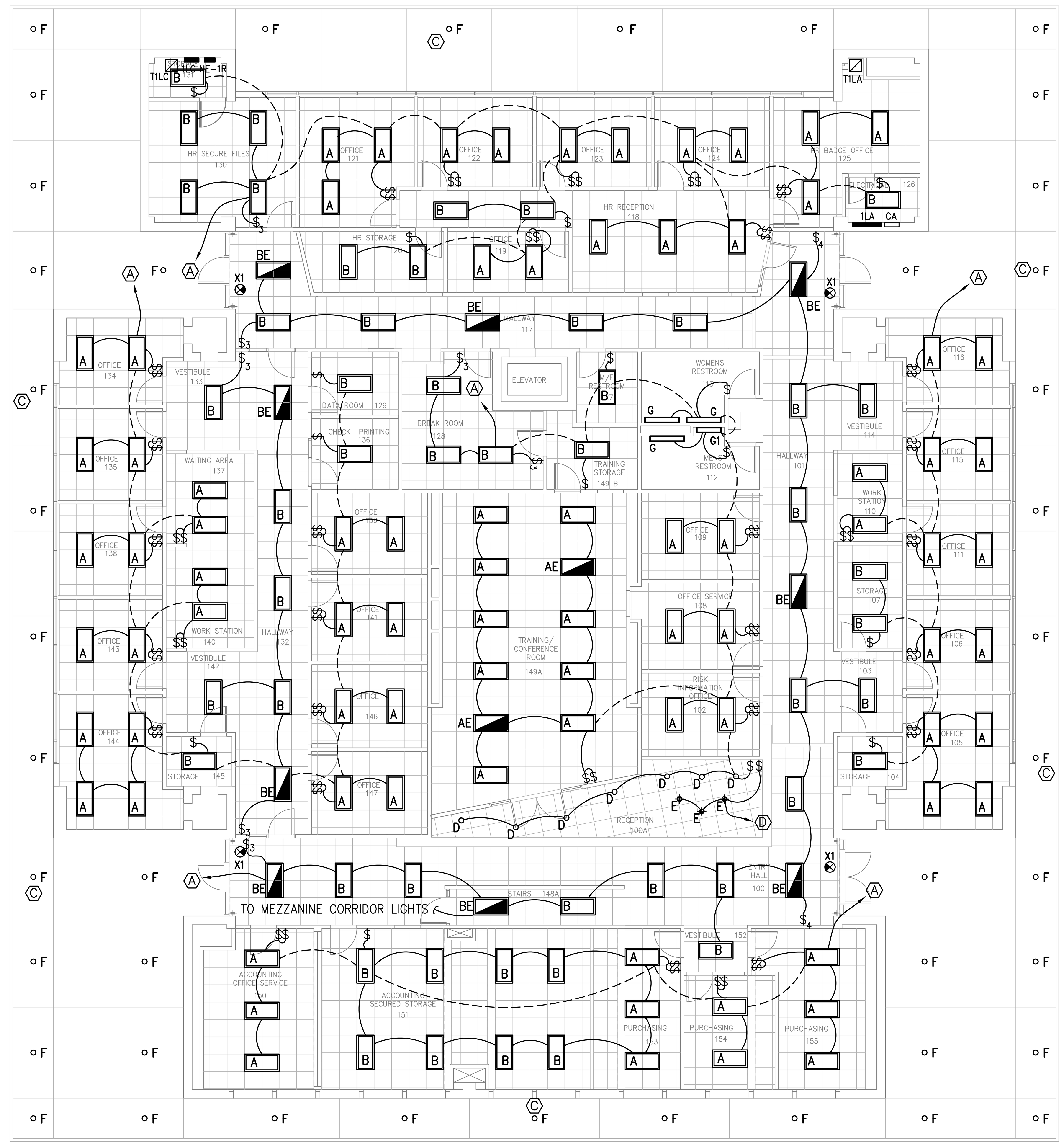
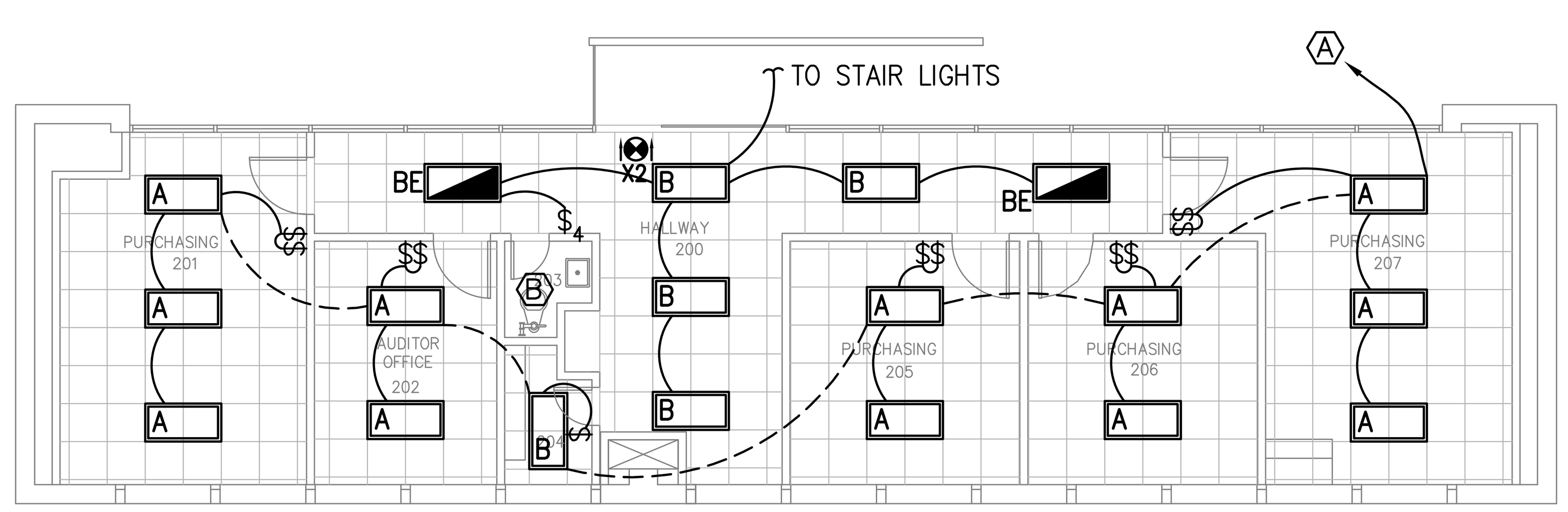
NOTES:
1. SEE E1 FOR GENERAL NOTES, LEGEND, SCHEDULES.
2. CONNECT BATTERY UNIT ON THE "_E" FIXTURES TO A CONTINUOUS HOT LEG AND SWITCH FIXTURE WITH ITS NORMAL SWITCH GROUP, UNLESS NOTED OTHERWISE.
3. CONNECT EXIT LIGHTS TO THE NEAREST LIGHTING CIRCUIT.
4. SWITCH INNER AND OUTER LAMP BALLASTS ON A SEPARATE SWITCH WHERE DUAL SWITCHING IS INDICATED.

KEYED NOTES:

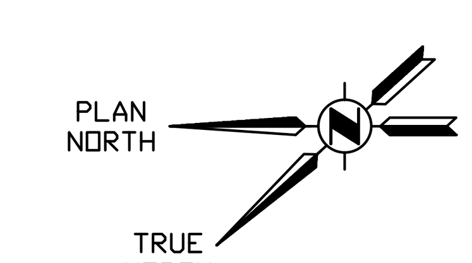
(A) CONNECT TO EXISTING PANEL "HA" CIRCUIT PRESENTLY SERVING THIS AREA (20A, 277V).
(B) MAINTAIN EXISTING LIGHTING.
(C) EXISTING SOFFIT DOWNLIGHTS TO BE REPLACED WITH THE SCHEDULED RETROFIT HID DOWNLIGHT. CONNECT FIXTURES TO THE EXISTING LIGHTING CIRCUITS. TYPICAL OF ALL "F" FIXTURES.
(D) CONNECT TO THE NEAREST RECEPTACLE CIRCUIT.



1 LIGHTING PLAN – FIRST FLOOR
SCALE: 1/8"=1'



2 LIGHTING PLAN – MEZZANINE FLOOR
SCALE: 1/8"=1'



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NOTES:
1. SEE E1 FOR GENERAL NOTES, LEGEND, SCHEDULES.
2. CONNECT BATTERY UNIT ON THE "_E" FIXTURES TO A CONTINUOUS HOT LEG AND SWITCH FIXTURE WITH ITS NORMAL SWITCH GROUP, UNLESS NOTED OTHERWISE.
3. CONNECT EXIT LIGHTS TO THE NEAREST LIGHTING CIRCUIT.
4. SWITCH INNER AND OUTER LAMP BALLASTS ON A SEPARATE SWITCH WHERE DUAL SWITCHING IS INDICATED.

KEYED NOTES:

(A) CONNECT TO EXISTING PANEL "HA" CIRCUIT PRESENTLY SERVING THIS AREA (20A, 277V).

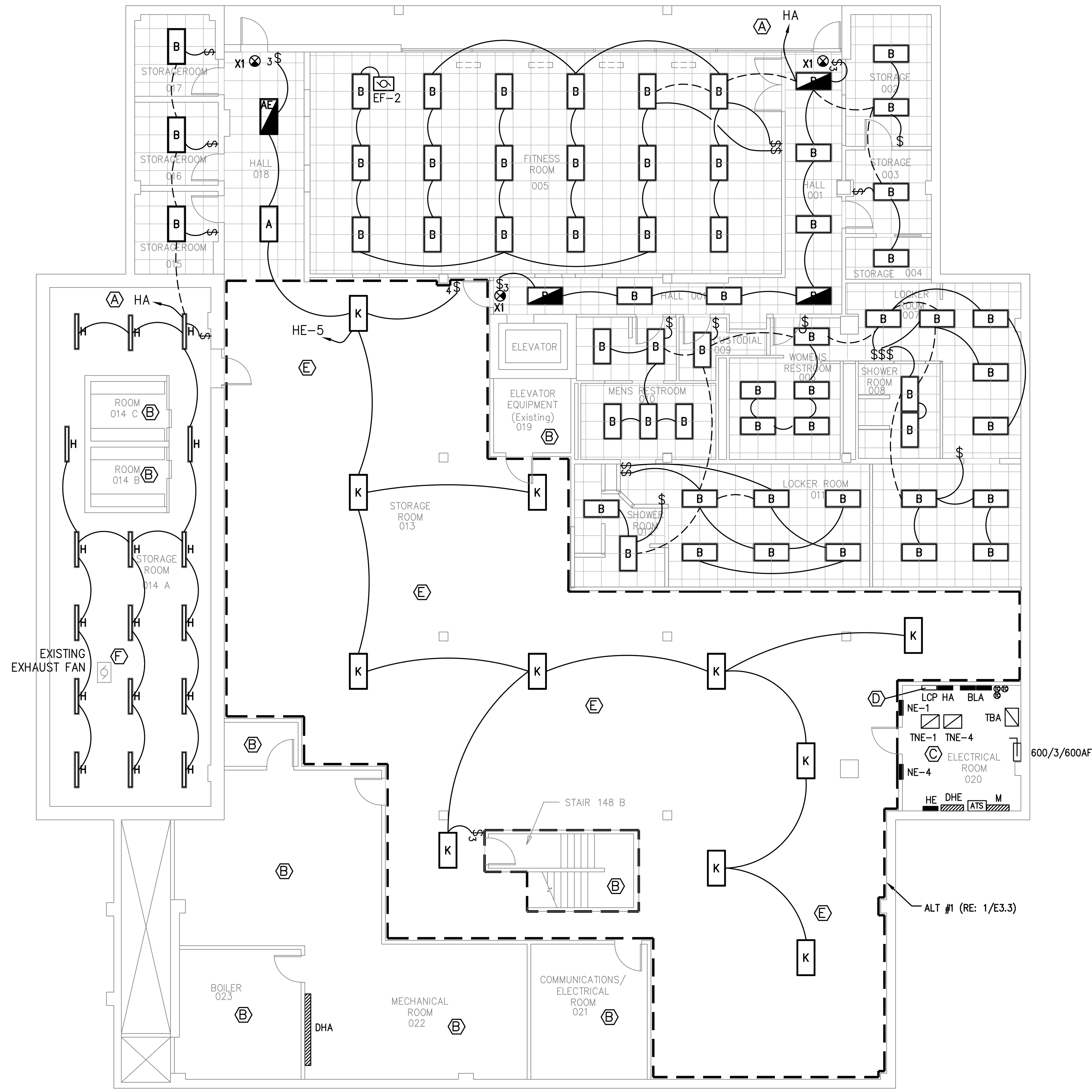
(B) NO WORK IN THIS AREA. MAINTAIN EXISTING LIGHTING.

(C) EXISTING ELECTRICAL GEAR TO REMAIN. MODIFY AS NEEDED TO ACCOMPLISH THESE RENOVATIONS. REUSE EXISTING CIRCUIT BREAKERS AND CIRCUIT WIRING AS NEEDED. VERIFY EXISTING LOADS AND KEPT CIRCUIT LOADING TO 80% OF ITS RATING. PROVIDE NEW TYPED DIRECTORIES TO INDICATE ALL LOADS SERVED.

(D) ALL LIGHTING CIRCUITS FROM PANEL "HA" TO BE RE-ROUTED THROUGH INDIVIDUAL RELAYS IN A NEW LIGHTING CONTROL PANEL MOUNTED NEXT TO PANEL "HA". LIGHTING CONTROL PANEL TO BE CONTROLLED BY THE OWNER'S TAC CONTROLS. LIGHTING CONTROL PANEL SHOULD BE EQUAL TO A TAC 7780 DLCU2-32 DISTRIBUTED LIGHTING CONTROL UNIT.

(E) PROVIDE EGRESS LIGHTING IN THE AREA AS INDICATED BY SUSPENDING THE "K" FIXTURES SHOWN FROM THE STRUCTURE AND CONNECTING THEM TO EXISTING CIRCUIT HE-5. CONTRACTOR SHALL UTILIZE THE BEST OF THE DEMOLISHED LIGHTING FIXTURES AS THE "K" FIXTURE.

(F) EXISTING EXHAUST FAN EF-4 TO REMAIN. NO WORK REQUIRED.



1 LIGHTING PLAN - BASEMENT - BASE BID
SCALE: 1/8"=1'

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APRIL 6, 2010

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of

NOTES:
1. SEE E1 FOR GENERAL NOTES, LEGEND, SCHEDULES.
2. CONNECT BATTERY UNIT ON THE "_E" FIXTURES TO A CONTINUOUS HOT LEG AND SWITCH FIXTURE WITH ITS NORMAL SWITCH GROUP, UNLESS NOTED OTHERWISE.
3. CONNECT EXIT LIGHTS TO THE NEAREST LIGHTING CIRCUIT.
4. SWITCH INNER AND OUTER LAMP BALLASTS ON A SEPARATE SWITCH WHERE DUAL SWITCHING IS INDICATED.

KEYED NOTES:

Ⓐ CONNECT TO EXISTING PANEL "HA" CIRCUIT PRESENTLY SERVING THIS AREA (20A, 277V).

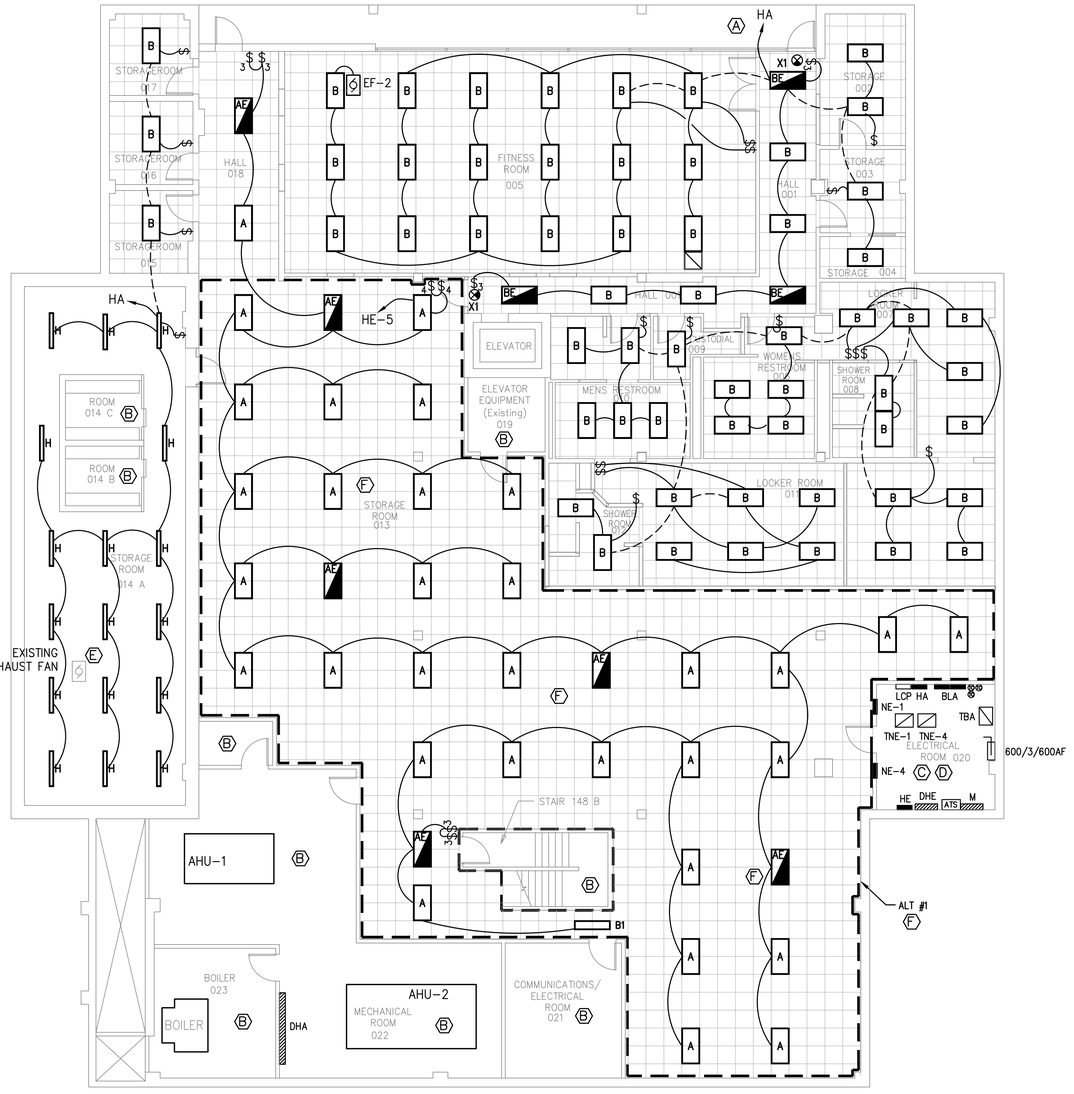
Ⓑ NO WORK IN THIS AREA. MAINTAIN EXISTING LIGHTING.

Ⓒ EXISTING ELECTRICAL GEAR TO REMAIN. MODIFY AS NEEDED TO ACCOMPLISH THESE RENOVATIONS. REUSE EXISTING CIRCUIT BREAKERS AND CIRCUIT WIRING AS NEEDED. VERIFY EXISTING LOADS AND KEPT CIRCUIT LOADING TO 80% OF ITS RATING. PROVIDE NEW TYPED DIRECTORIES TO INDICATE ALL LOADS SERVED.

Ⓓ ALL LIGHTING CIRCUITS FROM PANEL "HA" TO BE RE-ROUTED THROUGH INDIVIDUAL RELAYS IN A NEW LIGHTING CONTROL PANEL MOUNTED NEXT TO PANEL "HA". LIGHTING CONTROL PANEL TO BE CONTROLLED BY THE OWNER'S TAC CONTROLS. LIGHTING CONTROL PANEL SHOULD BE EQUAL TO A TAC 7780 DLCU2-32 DISTRIBUTED LIGHTING CONTROL UNIT.

Ⓔ EXISTING EXHAUST FAN EF-4 TO REMAIN. NO WORK REQUIRED.

Ⓕ ADD THE GRID AND FIXTURES INDICATED FOR THE AREA ENCLOSED AS ALTERNATE BID #1.



1 LIGHTING PLAN – BASEMENT – ALT #1
SCALE: 1/8"=1'

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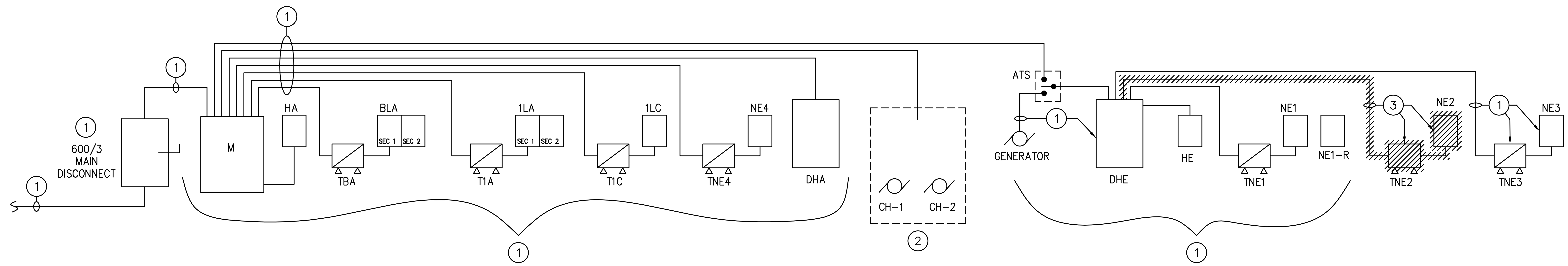
ONE-LINE KEYED NOTES

1. EXISTING TO REMAIN. MODIFY AS NEEDED TO ACCOMPLISH THESE RENOVATION
2. EXISTING CHILLER TO BE REPLACED. REFER TO DETAIL 3 SHEET E2.1 FOR MORE INFORMATION.
3. EXISTING PANEL NE2, TRANSFORMER TNE2 AND THEIR ASSOCIATED CIRCUITS AND FEEDERS TO BE REMOVED. RE: 1/E1.1 KEYED NOTE B.

GENERAL NOTES

1. SEE SHEET E6.0 FOR PANEL SCHEDULES "1LAL, 1LAR, 1LC, BLAL, BLAR, AND NE4."
2. PANEL SCHEDULES HAVE NOT BEEN SHOWN FOR PANELS "HE, DHE, NE1, NE1-R, NE2, AND NE3." PANEL NE2 SHALL BE REMOVED WITH ITS ASSOOCIATED FEEDERS, CIRCUITS AND TRANSFORMER. NO NEW CIRCUITS HAVE BEEN ADDED TO THE REMAINING PANELS. CONTRACTOR SHALL MAINTAIN THESE PANELS AND REMOVE ANY CIRCUITS THAT NEED TO BE DEMOLISHED DUE TO THESE RENOVATIONS. CONTRACTOR MAY UTILIZE CIRCUITS FROM THESE PANELS AS NEEDED. ANY CHANGES TO THESE PANELS SHALL BE DOCUMENTED AND NEW TYPED DIRECTORIES PROVIDED.

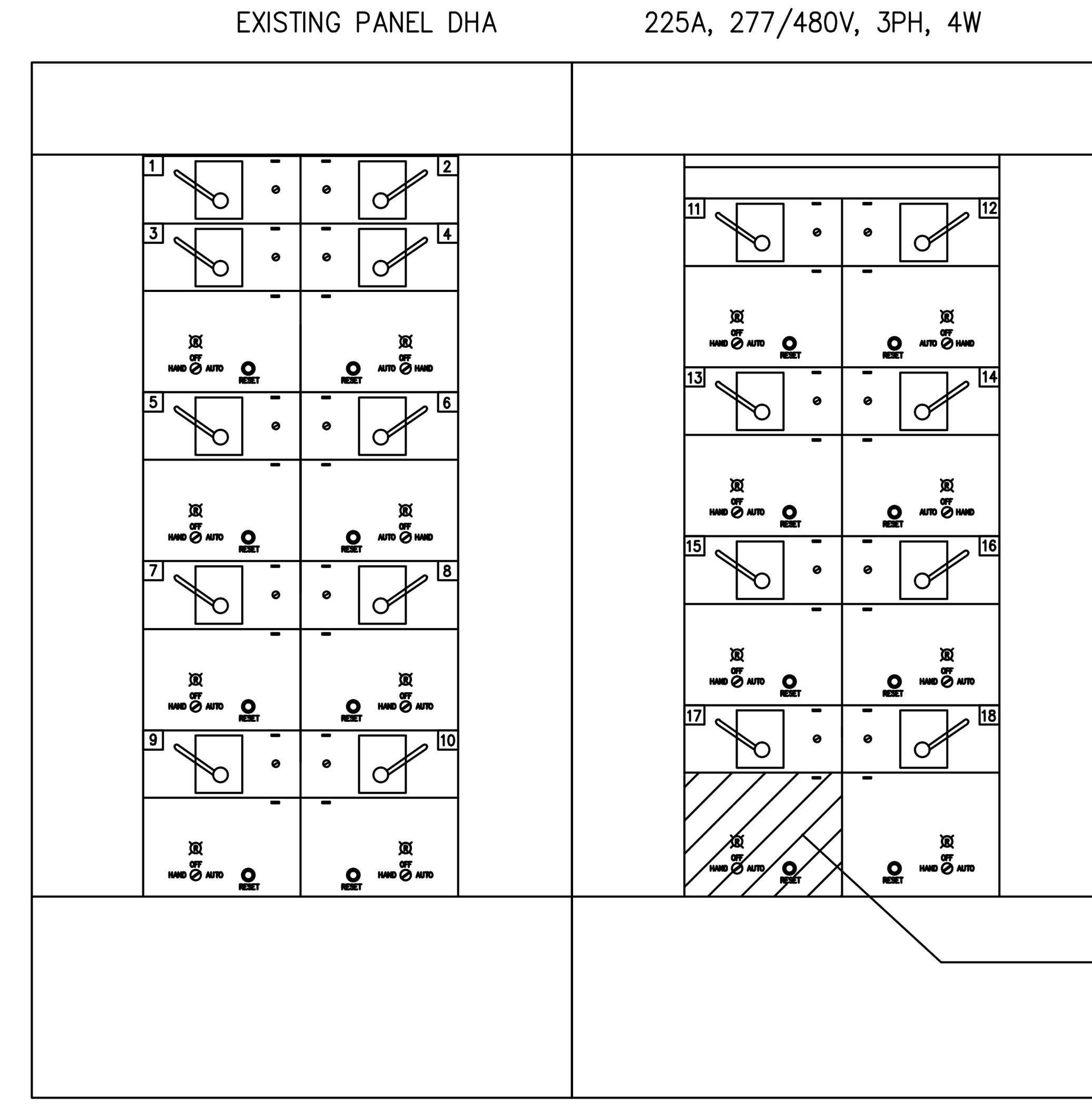


2 ELECTRICAL RISER DIAGRAM
SCALE: NONE

NOTES															NOTES
		EXISTING PANEL: HA					VEND: SQUARE D								
		BREAKER TYPE: MOLDED CASE					MODEL: NEHB						MAIN LUGS AMPS	100	
		MOUNTING: SURFACE					SERIES RATING:						VOLTS	480 277	
		ENCLOSURE: NEMA 1											PHASE/WIRE	3 4	
	CKT	DESCRIPTION	AWG	MOCP	A1	A2	B1	B2	C1	C2	MOCP	AWG	DESCRIPTION	CKT	
1	1	Patrol Sargent & Detective	Extg	20	0	0					20	Extg	Exercise Room Lts	2	1
1	3	Briefing Rm & Womens RR	Extg	20			0	0			20	Extg	Mens Locker Room	4	1
1	5	142,148, 143, & Cell	Extg	20					0	0	20	Extg	Hallway & Office Area Lts	6	1
1	7	Spare		20	0	0					20	Extg	Mezzanine Lts	8	1
1	9	257 thru 262	Extg	20			0	0			20	Extg	207 thru 214	10	1
1	11	Spare		20					0	0	20	Extg	Tunnel Lights	12	1
1	13	Spare		20	0	0					20	Extg	247,254,255	14	1
1	15	Spare		20			0	0			20		Spare	16	1
1	17	Spare		20					0	0	20	Extg	Upstairs Board Rm, Interogation	18	1
		0	0	0		0		0		0	0	0	0		
		PHASE SUMMARY			A=	0	B=	0	C=	0					
		TOTAL LIGHTING VA											0		
		TOTAL RECEPTACLE VA											0		
		TOTAL OTHER EQUIPMENT											0		
		25% CONTINUOUS VA											0		
		25% OF LARGEST MOTOR											0		
		TOTAL VA REQUIRED											0		
		TOTAL AMPS REQUIRED											0		

NOTES: 1. CIRCUIT DESCRIPTIONS SHOWN ARE FROM THE EXISTING PANEL DIRECTORY. CONTRACTOR SHALL FIELD VERIFY EACH CIRCUIT AND RE-USE THE EXISTING BREAKERS AND WIRING AS NEEDED. PROVIDE A NEW TYPED DIRECTORY FOR THE FINAL LIGHTING CIRCUITS.

EXISTING PANEL DHA 225A, 277/480V, 3PH, 4W



#	SWITCH	DESCRIPTION
1	30A/3P	SEWER EJECTOR
2	30A/3P	ELEVATOR CONTROLS
3	30A/3P	EF-3
4	30A/3P	–
5	30A/3P	EF-5
6	30A/3P	EF-6
7	30A/3P	EF-7
8	30A/3P	EF-8
9	30A/3P	–
10	30A/3P	SUPPLY FAN
11	30A/3P	HWP
12	30A/3P	SUMP PUMP
13	30A/3P	CWP
14	30A/3P	AHU-1
15	30A/3P	STANDBY PUMP
16	30A/3P	EF-1
17	60A/3P	AHU-2
18	60A/3P	SPARE

REPLACE THE EXISTING BAD SIZE 2 STARTER WITH A NEW SIZE 2 STARTER AND RECONNECT THE EXISTING CIRCUIT WIRING TO AHU-2.

1 EXISTING PANEL DHA
SCALE: NONE

The Arkitex Studio, Inc.
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STATE OF TEXAS
HAROLD B.KUHN
50687
REGISTERED PROFESSIONAL ENGINEER
04-05-10

Renovation of the
Bryan City Hall Annex
Owner: City of Bryan, P.O. Box 1000, Bryan, Texas 77805

Revisions	
Number	Date

Project 0918
APRIL 6, 2010

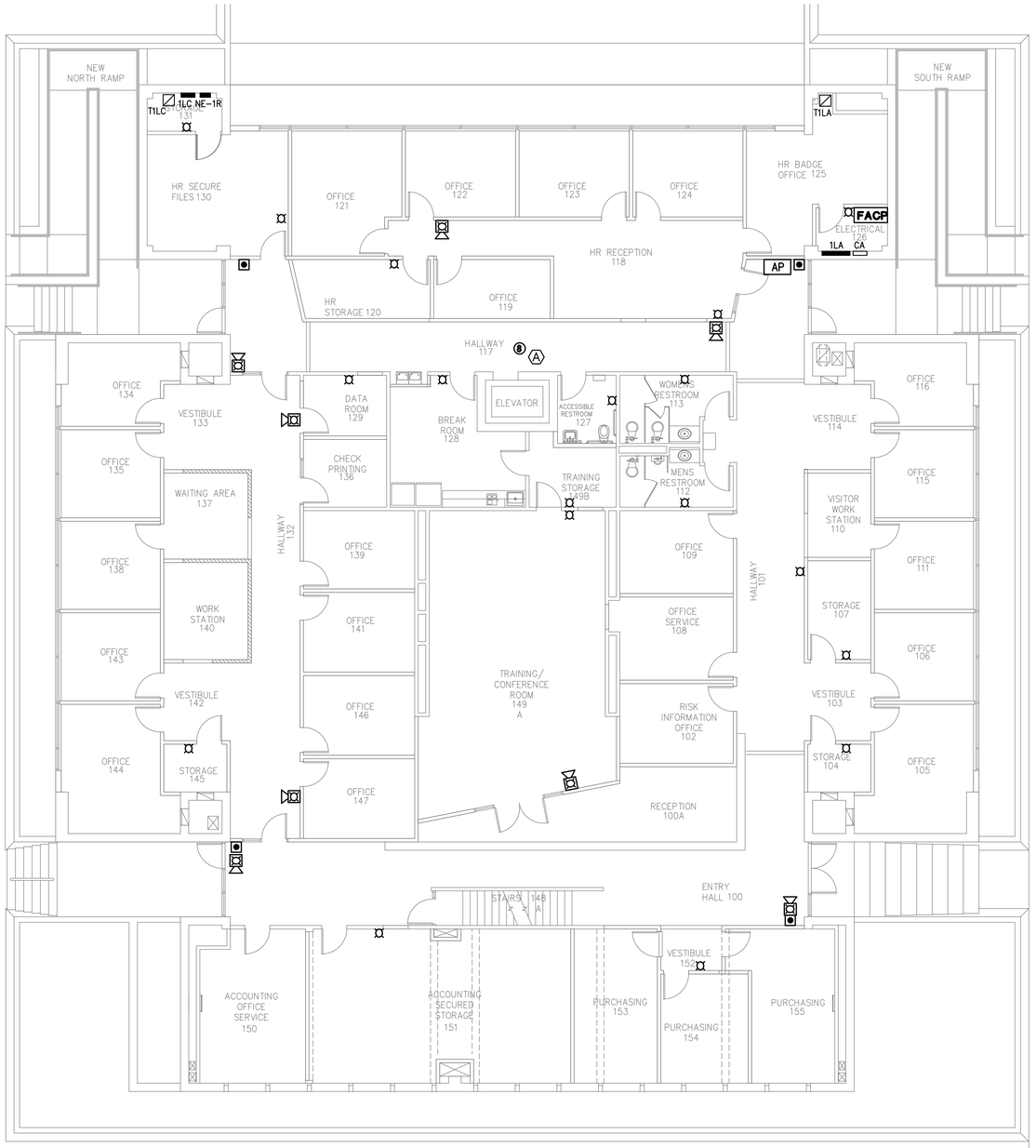
E4.0

of

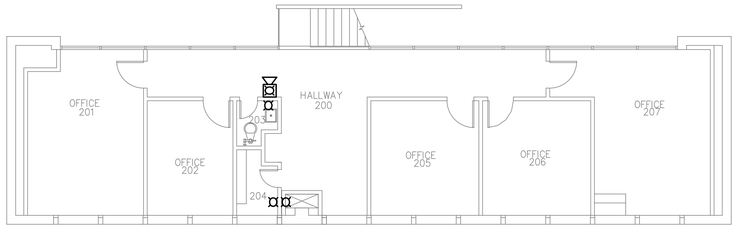
NOTES:
1. SEE E1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.
2. MODIFY THE EXISTING FIRE SPRINKLER SYSTEM AS NEEDED TO ACCOMPLISH THESE RENOVATIONS. MATCH EXISTING HEADS AND STYLES.

KEYED NOTES:

(A) PROVIDE THE REQUIRED LOBBY SMOKE DETECTORS AND ACCESSORIES REQUIRED FOR ELEVATOR RECALL.



1 SPECIAL SYSTEMS PLAN – FIRST FLOOR
SCALE: 1/8"=1'



2 SPECIAL SYSTEMS PLAN – MEZZANINE FLOOR
SCALE: 1/8"=1'

PLAN NORTH
TRUE NORTH

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HAROLD B. KUHN
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REGISTERED PROFESSIONAL ENGINEER
04-05-10

Renovation of the
Bryan City Hall Annex
Owner: City of Bryan, P.O. Box 1000, Bryan, Texas 77805

Revisions	
Number	Date

Project 0918
APRIL 6, 2010

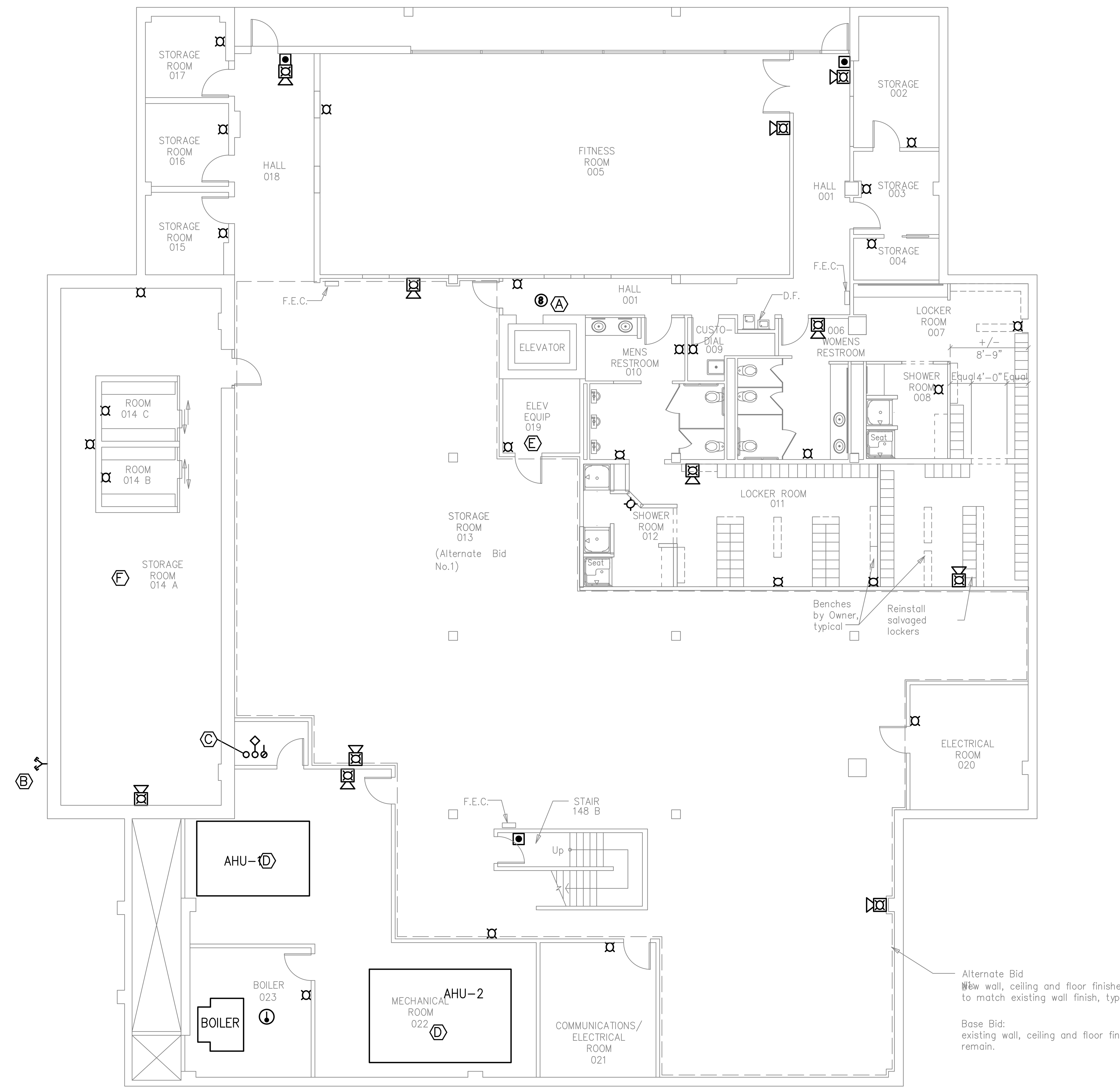
E5.1

of

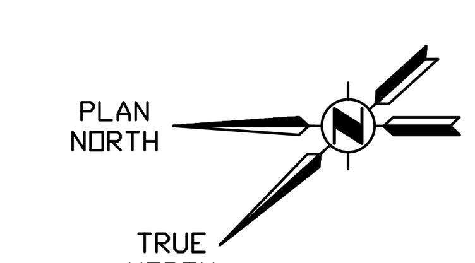
NOTES:
1. SEE E1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.
2. MODIFY THE EXISTING FIRE SPRINKLER SYSTEM AS NEEDED TO ACCOMPLISH THESE RENOVATIONS. MATCH EXISTING HEADS AND STYLES.

KEYED NOTES:

- (A) PROVIDE THE REQUIRED LOBBY SMOKE DETECTORS ACCESSORIES FOR ELEVATOR RECALL.
- (B) EXISTING FIRE DEPARTMENT SIAMESE CONNECTION TO REMAIN.
- (C) EXISTING FIRE SPRINKLER SYSTEM STANDPIPE TO REMAIN.
- (D) PROVIDE DUCT DETECTORS IN THE SUPPLY AND RETURN AIR. DETECTORS FURNISHED BY FIRE ALARM CONTRACTOR FOR INSTALLATION BY THE MECHANICAL CONTRACTOR. FINAL CONNECTIONS TO THE FIRE ALARM SYSTEM BY THE FIRE ALARM CONTRACTOR.
- (E) EXISTING ELEVATOR EQUIPMENT ROOM. PROVIDE THE REQUIRED DETECTORS, ACCESSORIES AND INTERFACING WITH THE FIRE ALARM SYSTEM.
- (F) FIRE SPRINKLER SYSTEM TO BE REMOVED FROM ROOM 014.



1 SPECIAL SYSTEMS PLAN – BASEMENT
SCALE: 1/8"=1'



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STATE OF TEXAS
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04-05-10

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Revisions	
Number	Date

Project 0918
APRIL 6, 2010

E5.2

of

EXISTING PANEL: 1LAL

BREAKER TYPE: MOLDED CASE — MOUNTING: FLUSH — ENCLOSURE: NEMA 1
VEND: SQUARE D — MODEL: NQOB — SERIES RATING: 10K AIC
MAIN LUGS AMPS 400 — VOLTS 208 120 — PHASE/WIRE 3 4

NOTES	CKT	DESCRIPTION	AWG	MOCP	A1	A2	B1	B2	C1	C2	MOCP	AWG	DESCRIPTION	CKT	NOTES
2	1	Overhead Outside Lights	Extg	20	360	900					20	12	5 Rec - Office 116	2	3
2	3	Overhead Outside Lights	Extg	20			360	900			20	12	5 Rec - Office 115	4	3
2	5	Overhead Outside Lights	Extg	20					360	900	20	12	5 Rec - Office 111	6	3
2	7	Overhead Outside Lights	Extg	20	360	0					30		Spare	8	1
2	9	Overhead Outside Lights	Extg	20			360	0						10	1
2	11	Overhead Outside Lights	Extg	20					360	720	20	Extg	Slide Gate	12	1
2	13	Overhead Outside Lights	Extg	20	360	900					20	12	5 Rec - Office 106	14	3
2	15	Overhead Outside Lights	Extg	20			360	900			20	12	5 Rec - Office 105	16	3
2	17	Overhead Outside Lights	Extg	20					360	120	30	Extg	Photocell Control Circuit	18	1
2	19	Overhead Outside Lights	Extg	20	360	0					20		Spare	20	1
2	21	Overhead Outside Lights	Extg	20			360	0						22	1
2	23	Overhead Outside Lights	Extg	20					360	900	20	12	5 Rec - Visitor Work Station, Vestibule	24	3
1	25	EF-2 Roof Exh Fan	Extg	20	700	0					20		Spare	26	1
1	27	Soffit Lighting Controller	Extg	20			120	0					Space	28	1
1	29	Space							0	0			Space	30	1
		0	0	0		0		0		0	0	0	0		

PHASE SUMMARY		A= 3940 B= 3360 C= 4080
TOTAL LIGHTING VA		0
TOTAL RECEPTACLE VA		5,520
TOTAL OTHER EQUIPMENT		5,860
25% CONTINUOUS VA		0
25% OF LARGEST MOTOR		540
TOTAL VA REQUIRED		11,920
TOTAL AMPS REQUIRED		33

NOTES: 1. EXISTING TO REMAIN.
2. EXTERIOR LIGHTING TO BE REPLACED. REUSE THE EXISTING CIRCUIT.
3. EXISTING BREAKER TO BE REUSED TO SERVE THE LOAD INDICATED. REUSE CIRCUIT WIRING WHEN PRACTICAL OTHERWISE PROVIDE A NEW CIRCUIT TO SERVE THE LOAD.

EXISTING PANEL: 1LAR

BREAKER TYPE: MOLDED CASE — MOUNTING: FLUSH — ENCLOSURE: NEMA 1
VEND: SQUARE D — MODEL: NQOB — SERIES RATING: 10K AIC
MAIN LUGS AMPS 400 — VOLTS 208 120 — PHASE/WIRE 3 4

NOTES	CKT	DESCRIPTION	AWG	MOCP	A1	A2	B1	B2	C1	C2	MOCP	AWG	DESCRIPTION	CKT	NOTES
2	1	8 Rec - Corridor, Storage	12	20	1440	900					20	12	5 Rec - Office 122	2	2
2	3	4 Rec - Reception 118	12	20			720	900			20	12	5 Rec - Office 123	4	2
2	5	5 Rec - Office 119	12	20					900	900	20	12	5 Rec - Office 124	6	2
2	7	6 Rec - Corridor, Storage, HC Rstrm	12	20	1080	720					20	12	4 Rec - HR Badge Office 125, Elect	8	2
2	9	3 Rec - Data Rm 129	12	20			540	900			20	12	5 Rec - Existing Rec HR Badge Office 125	10	2
2	11	4 Rec - Check Printing 136	12	20					720	0	20	Extg	Spare or Existing Load	12	1
1	13	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	14	1
1	15	Spare or Existing Load	Extg	20			0	0			30		Spare	16	1
1	17	Spare or Existing Load	Extg	20					0	0				18	1
1	19	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	20	1
1	21	Spare or Existing Load	Extg	20			0	0			20	Extg	Spare or Existing Load	22	1
1	23	Spare or Existing Load	Extg	20					0	0	20	Extg	Spare or Existing Load	24	1
3	25	EDF	Extg	20	720	1200					20	Extg	Generator Heater	26	3
1	27	Spare or Existing Load	Extg	20			0	0					Space	28	3
3	29	Space							0	0			Space	30	3
		0				0		0		0			0		

PHASE SUMMARY		A= 6060 B= 3060 C= 2520
TOTAL LIGHTING VA		0
TOTAL RECEPTACLE VA		9,720
TOTAL OTHER EQUIPMENT		1,920
25% CONTINUOUS VA		0
25% OF LARGEST MOTOR		540
TOTAL VA REQUIRED		12,180
TOTAL AMPS REQUIRED		34

NOTES: 1. CIRCUIT BREAKER TO REMAIN AS A SPARE OR THE EXISTING LOAD TO REMAIN IF NEEDED. FIELD VERIFY.
2. EXISTING BREAKER TO BE REUSED TO SERVE THE LOAD INDICATED. REUSE CIRCUIT WIRING WHEN PRACTICAL OTHERWISE PROVIDE A NEW CIRCUIT TO SERVE THE LOAD.
3. EXISTING TO REMAIN.

EXISTING PANEL: BLAL

BREAKER TYPE: MOLDED CASE — MOUNTING: SURFACE — ENCLOSURE: NEMA 1
VEND: SQUARE D — MODEL: NQOB — SERIES RATING: 10K AIC
MAIN LUGS AMPS 225 — VOLTS 208 120 — PHASE/WIRE 3 4

NOTES	CKT	DESCRIPTION	AWG	MOCP	A1	A2	B1	B2	C1	C2	MOCP	AWG	DESCRIPTION	CKT	NOTES
3	1	Spare		20	0	0					20	Extg	Spare or Existing Load	2	1
3	3						0	0			20	Extg	Spare or Existing Load	4	1
2	5	4 Rec - Weight Rm Overhead TV Rec	12	20					720	0	20	Extg	Spare or Existing Load	6	1
3	7	Spare		20	0	0					20	Extg	Spare or Existing Load	8	1
1	9	Spare or Existing Load	Extg	20			0	0			30	Extg	Spare or Existing Load	10	1
1	11	Spare or Existing Load	Extg	20					0	0	20	Extg	Spare or Existing Load	12	1
1	13	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	14	1
1	15	Spare or Existing Load	Extg	20			0	0			20	Extg	Spare or Existing Load	16	1
2	17	2 Rec - Womens Restroom Counter	12	20					360	0	20		Spare	18	3
2	19	2 Rec - Womens Shower Rm Counter	12	20	360	0					20	Extg	Spare or Existing Load	20	1
2	21	2 Rec - Womens Locker Rm Counter	12	20			360	0			20		Spare	22	3
2	23	1 Rec - EDF	12	20					720	0	20	Extg	Spare or Existing Load	24	1
3	25	Spare		20	0	0								26	1
3	27	Spare		20			0	0						28	1
3	29	Spare		20					0	0	20	Extg	Spare or Existing Load	30	1
3	31	Spare		20	0	0					20		Spare	32	3
1	33	Spare or Existing Load	Extg	20			0	0			20	Extg	Spare or Existing Load	34	1
1	35	Spare or Existing Load	Extg	20					0	0	20	Extg	Spare or Existing Load	36	1
1	37	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	38	1
3	39	Spare		20			0	0			20	Extg	Spare or Existing Load	40	1
3	41	Spare		20					0	0	20	Extg	Spare or Existing Load	42	1
		0				0		0		0			0		

PHASE SUMMARY		A= 360 B= 360 C= 1800
TOTAL LIGHTING VA		0
TOTAL RECEPTACLE VA		1,800
TOTAL OTHER EQUIPMENT		720
25% CONTINUOUS VA		0
25% OF LARGEST MOTOR		0
TOTAL VA REQUIRED		2,520
TOTAL AMPS REQUIRED		7

NOTES: 1. CIRCUIT BREAKER TO REMAIN AS A SPARE OR THE EXISTING LOAD TO REMAIN IF NEEDED. FIELD VERIFY.
2. EXISTING BREAKER TO BE REUSED TO SERVE THE LOAD INDICATED. REUSE CIRCUIT WIRING WHEN PRACTICAL OTHERWISE PROVIDE A NEW CIRCUIT TO SERVE THE LOAD.
3. EXISTING TO REMAIN.

EXISTING PANEL: BLAR

BREAKER TYPE: MOLDED CASE — MOUNTING: SURFACE — ENCLOSURE: NEMA 1
VEND: SQUARE D — MODEL: NQOB — SERIES RATING: 10K AIC
MAIN LUGS AMPS 225 — VOLTS 208 120 — PHASE/WIRE 3 4

NOTES	CKT	DESCRIPTION	AWG	MOCP	A1	A2	B1	B2	C1	C2	MOCP	AWG	DESCRIPTION	CKT	NOTES
1	1	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	2	1
1	3	Spare or Existing Load	Extg	20			0	0			20	Extg	Spare or Existing Load	4	1
1	5	Spare or Existing Load	Extg	20					0	0	20	Extg	Spare or Existing Load	6	1
1	7	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	8	1
1	9	Spare or Existing Load	Extg	20			0	0			20	Extg	Spare or Existing Load	10	1
1	11	Spare or Existing Load	Extg	20					0	0	20	Extg	Spare or Existing Load	12	1
1	13	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	14	1
1	15	Spare or Existing Load	Extg	20			0	0			20	Extg	Spare or Existing Load	16	1
1	17	Spare or Existing Load	Extg	20					0	0	20	Extg	Spare or Existing Load	18	1
1	19	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	20	1
1	21						0	0			20	Extg	Spare or Existing Load	22	1
1	23	Spare or Existing Load	Extg	20					0	0	20	Extg	Spare or Existing Load	24	1
1	25	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	26	1
1	27	Spare or Existing Load	Extg	20			0	0						28	1
1	29	Spare or Existing Load	Extg	20					0	0	20	Extg	Spare or Existing Load	30	1
1	31	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	32	1
1	33						0	0			20	Extg	Spare or Existing Load	34	1
1	35	Spare or Existing Load	Extg	20					0	0	20	Extg	Spare or Existing Load	36	1
1	37	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	38	1
1	39						0	0			20	Extg	Spare or Existing Load	40	1
1	41								0	0	20	Extg	Spare or Existing Load	42	1
		0				0		0		0			0		

PHASE SUMMARY		A= 0 B= 0 C= 0
TOTAL LIGHTING VA		0
TOTAL RECEPTACLE VA		0
TOTAL OTHER EQUIPMENT		0
25% CONTINUOUS VA		0
25% OF LARGEST MOTOR		0
TOTAL VA REQUIRED		0
TOTAL AMPS REQUIRED		0

NOTES: 1. CIRCUIT BREAKER TO REMAIN AS A SPARE OR THE EXISTING LOAD TO REMAIN IF NEEDED. FIELD VERIFY.

EXISTING PANEL: 1LC

BREAKER TYPE: MOLDED CASE — MOUNTING: SURFACE — ENCLOSURE: NEMA 1
VEND: SQUARE D — MODEL: NQOB — SERIES RATING: 10K AIC
MAIN LUGS AMPS 400 — VOLTS 208 120 — PHASE/WIRE 3 4

NOTES	CKT	DESCRIPTION	AWG	MOCP	A1	A2	B1	B2	C1	C2	MOCP	AWG	DESCRIPTION	CKT	NOTES
2	1	5 Rec - HR Secure Files, Storage	12	20	900	900					20	12	5 Rec - Office 143	2	2
2	3	5 Rec - Office 121	12	20			900	900			20	12	5 Rec - Office 144	4	2
2	5	5 Rec - Office 134	12	20					900	1080	20	12	6 Rec - Waiting, Corridor, Storage	6	2
2	7	5 Rec - Office 135	12	20	900	360					20	12	2 Rec - Break Room, Corr EDF	8	2
2	9	5 Rec - Office 138	12	20			900	720			20	12	1 Rec - Break Room Refrigerator	10	2
2	11	5 Rec - Work Station 140	12	20					900	720	20	12	1 Rec - Break Room Refrigerator	12	2
2	13	5 Rec - Office 143	12	20	900	180					20	12	1 Rec - Break Room Counter	14	2
1	15	Spare or Existing Load	Extg	20			0	180			20	12	1 Rec - Break Room Counter	16	2
1	17	Spare or Existing Load	Extg	20					0	0	20	Extg	Spare or Existing Load	18	1
1	19	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	20	1
1	21	Spare or Existing Load	Extg	20			0	0			20	Extg	Spare or Existing Load	22	1
1	23	Spare or Existing Load	Extg	20					0	0	20	Extg	Spare or Existing Load	24	1
1	25	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	26	1
1	27	Spare or Existing Load	Extg	20			0	0			20	Extg	Spare or Existing Load	28	1
1	29	Spare or Existing Load	Extg	20					0	0	20	Extg	Spare or Existing Load	30	1
1	31	Spare or Existing Load	Extg	20	0	0					20	Extg	Spare or Existing Load	32	1
1	33	Spare or Existing Load	Extg	20			0	0						34	1
1	35	Spare or Existing Load	Extg	20					0	0				36	1
1	37				0	0					20	Extg	Spare or Existing Load	38	1
1	39						0	0			20	Extg	Spare or Existing Load	40	1
		0				0		0		0	0	0	0		

PHASE SUMMARY		A= 4140 B= 3600 C= 3600
TOTAL LIGHTING VA		0
TOTAL RECEPTACLE VA		9,900
TOTAL OTHER EQUIPMENT		1,440
25% CONTINUOUS VA		0
25% OF LARGEST MOTOR		0
TOTAL VA REQUIRED		11,340
TOTAL AMPS REQUIRED		31

NOTES: 1. CIRCUIT BREAKER TO REMAIN AS A SPARE OR THE EXISTING LOAD TO REMAIN IF NEEDED. FIELD VERIFY.
2. EXISTING BREAKER TO BE REUSED TO SERVE THE LOAD INDICATED. REUSE CIRCUIT WIRING WHEN PRACTICAL OTHERWISE PROVIDE A NEW CIRCUIT TO SERVE THE LOAD.
3. EXISTING TO REMAIN.

EXISTING PANEL: NE4

BREAKER TYPE: MOLDED CASE — MOUNTING: FLUSH — ENCLOSURE: NEMA 1
VEND: SQUARE D — MODEL: NQOB — SERIES RATING: 10K AIC
MAIN CB AMPS 100 — VOLTS 208 120 — PHASE/WIRE 3 4

NOTES	CKT	DESCRIPTION	AWG	MOCP	A1	A2	B1	B2	C1	C2	MOCP	AWG	DESCRIPTION	CKT	NOTES
2	1	5 Rec - Office 109	12	20	900	900					20	12	5 Rec - Taining/Conference	2	2
2	3	5 Rec - Office Service 108	12	20			900	900			20	12	5 Rec - Taining/Conference, Storage	4	2
2	5	5 Rec - Risk Information Office 102	12	20					900	1500	20	Extg	Boiler & Chiller Controls	6	3
3	7	Boiler & Chiller Controls	Extg	20	1500	900					20	12	5 Rec - Office 139	8	2
2	9	5 Rec - Purchasing 155	12	20			900	900			20	12	5 Rec - Office 141	10	2
2	11	4 Rec - Purchasing 154	12	20					720	900	20	12	5 Rec - Office 146	12	2
2	13	6 Rec - Purchasing 153	12	20	1080	900					20	12	5 Rec - Office 147	14	2
2	15	4 Rec - Accounting Secured Storage	12	20			720	900			20	12	5 Rec - Reception 100A	16	2
2	17	5 Rec - Accounting Office Service 150	12	20					1080	180	20	12	1 Rec - Taining/Conference Ceiling	18	1
1	19	Spare		20	0	0					20		Spare	20	1
3	21	Space					0	0					Space	22	3
3	23	Space							0	0			Space	24	3
		0				0		0		0			0		

PHASE SUMMARY		A= 6180 B= 5220 C= 5280
TOTAL LIGHTING VA		0
TOTAL RECEPTACLE VA		13,680
TOTAL OTHER EQUIPMENT		3,000
25% CONTINUOUS VA		0
25% OF LARGEST MOTOR		0
TOTAL VA REQUIRED		16,680
TOTAL AMPS REQUIRED		46

NOTES: 1. CIRCUIT BREAKER TO REMAIN AS A SPARE OR THE EXISTING LOAD TO REMAIN IF NEEDED. FIELD VERIFY.
2. EXISTING BREAKER TO BE REUSED TO SERVE THE LOAD INDICATED. REUSE CIRCUIT WIRING WHEN PRACTICAL OTHERWISE PROVIDE A NEW CIRCUIT TO SERVE THE LOAD.
3. EXISTING TO REMAIN.

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STATE OF TEXAS — HAROLD B.KUHN — 50687 — REGISTERED PROFESSIONAL ENGINEER
04-05-10

Renovation of the
Bryan City Hall Annex
Owner: City of Bryan, P.O. Box 1000, Bryan, Texas 77805

Revisions	
Number	Date

Project 0918
APRIL 6, 2010

E6.0

of

COM*check* Software Version 3.6.1

Mechanical Compliance Certificate

2003 IECC

Section 1: Project Information

Project Type: **New Construction**
Project Title : Renovation of the Bryan City Hall Annex

Construction Site:
29th and Texas Avenue
Bryan, TX 77805

Owner/Agent:
City of Bryan
P.O. Box 1000
Bryan, TX 77805

Designer/Contractor:
Brazos Valley Engineering, Inc.
3209 Earl Rudder Freeway South
Suite 200
College Station, TX 77845-6011
(979) 693-2835
harold@bvei.com

Section 2: General Information

Building Location (for weather data):	**Bryan (Brazos), Texas**
Climate Zone:	**4b**
Heating Degree Days (base 65 degrees F):	**1788**
Cooling Degree Days (base 65 degrees F):	**2776**

Section 3: Mechanical Systems List

Quantity	System Type & Description
1	HVAC System 1: Heating: Hydronic or Steam Coil, Hot Water, Capacity 200 kBtu/h / Cooling: Hydronic Coil, Capacity 222 kBtu/h / Multiple-Zone w/ Perimeter System
1	HVAC System 2: Heating: Hydronic or Steam Coil, Hot Water, Capacity 449 kBtu/h / Cooling: Hydronic Coil, Capacity 432 kBtu/h / Multiple-Zone w/ Perimeter System

Section 4: Requirements Checklist

Requirements Specific To: HVAC System 1 :

❑ 1. Minimum one temperature control device per zone
- Exception: System is an independent perimeter system and must have at least one temperature control per building exposure over 50 lineal ft and facing one orientation

❑ 2. Balancing and pressure test connections on all hydronic terminal devices
❑ 3. Integrated air economizer required
❑ 4. Systems serving more than one zone must be VAV systems
❑ 5. Controls capable of resetting supply air temp (SAT) by 25% of SAT-room temp difference
❑ 6. Separate hot and cold water supply and returns
❑ 7. Multiple boilers must have automatic controls that sequence operation with load
❑ 8. Single boiler >500 kBtu/h input capacity must have a multistaged or modulating burner
❑ 9. Two-pipe changeover heating/cooling controls must have: a) 15 degrees F deadband where boiler and chiller can not operate, b) allow operation in either heating or cooling for at least 4 hrs. and c) prevent difference between heating and cooling set points greater than 30 degrees F

Requirements Specific To: HVAC System 2 :

❑ 1. Minimum one temperature control device per zone
- Exception: System is an independent perimeter system and must have at least one temperature control per building exposure over 50 lineal ft and facing one orientation

❑ 2. Balancing and pressure test connections on all hydronic terminal devices

❑ 3. Integrated air economizer required
❑ 4. Systems serving more than one zone must be VAV systems
❑ 5. Controls capable of resetting supply air temp (SAT) by 25% of SAT-room temp difference
❑ 6. Separate hot and cold water supply and returns
❑ 7. Multiple boilers must have automatic controls that sequence operation with load
❑ 8. Single boiler >500 kBtu/h input capacity must have a multistaged or modulating burner
❑ 9. Two-pipe changeover heating/cooling controls must have: a) 15 degrees F deadband where boiler and chiller can not operate, b) allow operation in either heating or cooling for at least 4 hrs. and c) prevent difference between heating and cooling set points greater than 30 degrees F

Generic Requirements: Must be met by all systems to which the requirement is applicable:

❑ 1. Load calculations per 2001 ASHRAE Fundamentals
❑ 2. Plant equipment and system capacity no greater than needed to meet loads
- Exception: Standby equipment automatically off when primary system is operating
- Exception: Multiple units controlled to sequence operation as a function of load

❑ 3. Minimum one temperature control device per system
❑ 4. Minimum one humidity control device per installed humidification/dehumidification system
❑ 5. Automatic Controls: Setback to 55 degrees F (heat) and 85 degrees F (cool); 7-day clock, 2-hour occupant override, 10-hour backup
- Exception: Continuously operating zones
- Exception: 2 kW demand or less, submit calculations

❑ 6. Automatic shut-off dampers on exhaust systems and supply systems with airflow >3,000 cfm
❑ 7. Outside-air source for ventilation; system capable of reducing OSA to required minimum
❑ 8. R-5 supply and return air duct insulation in unconditioned spaces R-8 supply and return air duct insulation outside the building R-8 insulation between ducts and the building exterior when ducts are part of a building assembly
- Exception: Ducts located within equipment
- Exception: Ducts with interior and exterior temperature difference not exceeding 15 degrees F.

❑ 9. Ducts sealed - longitudinal seams on rigid ducts; transverse seams on all ducts; UL 181A or 181B tapes and mastics
- Exception: Continuously welded and locking-type longitudinal joints and seams on ducts operating at static pressures less than 2 inches w.g. pressure classification

❑ 10.Mechanical fasteners and sealants used to connect ducts and air distribution equipment
❑ 11.Hot water pipe insulation: 1 in. for pipes <=1.5 in. and 2 in. for pipes >1.5 in. Chilled water/refrigerant/brine pipe insulation: 1 in. for pipes <=1.5 in. and 1.5 in. for pipes >1.5 in. Steam pipe insulation: 1.5 in. for pipes <=1.5 in. and 3 in. for pipes >1.5 in.
- Exception: Piping within HVAC equipment.
- Exception: Fluid temperatures between 55 and 105 degrees F.
- Exception: Fluid not heated or cooled.
- Exception: Runouts <4 ft in length.

❑ 12.Operation and maintenance manual provided to building owner
❑ 13.Balancing devices provided in accordance with IMC 603.15
❑ 14.Thermostatic controls have 5 degrees F deadband
- Exception: Thermostats requiring manual changeover between heating and cooling
- Exception: Special occupancy or special applications where wide temperature ranges are not acceptable and are approved by the authority having jurisdiction.

❑ 15.Stair and elevator shaft vents are equipped with motorized dampers
❑ 16.Three-pipe systems not used

Section 5: Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2003 IECC requirements in COM*check* Version 3.6.1 and to comply with the mandatory requirements in the Requirements Checklist.

BRIAN W. BRUMMIT, P.E.		12-22-09
Name - Title	Signature	Date

12-22-09

STATE OF TEXAS
BRIAN W. BRUMMIT
74740
REGISTERED
PROFESSIONAL ENGINEER

COM*check* Software Version 3.6.1

Mechanical Requirements Description

2003 IECC

The following list provides more detailed descriptions of the requirements in Section 4 of the Mechanical Compliance Certificate.

Requirements Specific To: HVAC System 1 :

1. Each zone of a multiple-zone system must have its own temperature control device.
   - Exception: Individual zone controls are not required for the specified system because it serves a perimeter area and is designed to offset heating or cooling loads through the building envelope. To qualify for this exception, the area served by the system must have one temperature control device for each building exposure with exterior walls facing a single orientation for 50 contiguous feet or more, and each temperature control must be located within the spaces served by the system.
2. Hydronic heating and cooling coils must be equipped with a way to pressure test connections and measure and balance water flow and pressure.
3. An integrated air economizer is required for individual cooling systems over 65 kBtu/h in the selected climate. An integrated economizer allows simultaneous operation of outdoor-air and mechanical cooling.
4. Systems serving multiple thermostatic control zones must be variable-flow systems. Zone terminal controls must reduce the flow of primary supply air before reheating, recooling, or mixing air streams.
5. Multiple-zone systems must include controls capable of resetting the supply air temperature by at least 25% of the difference between the design supply air temperature and the design room temperature.
6. Fan system terminal units must have separate hot and cold water supply and return piping.
7. Multiple packaged boilers must have automatic controls capable of sequencing the operation of the boilers.
8. A single boiler with >500 kBtu/h input capacity must have a multistaged or modulating burner.
9. Two-pipe changeover heating/cooling controls must: a) allow a deadband between changeover from one mode (heating/cooling) to the other of at least 15 degrees F outside temperatures b) allow operation in one mode (heating/cooling) for at least 4 hours before changing over to the other mode c) allow heating and cooling supply temperatures at the changeover point to be no more than 30 degrees F apart.

Requirements Specific To: HVAC System 2 :

1. Each zone of a multiple-zone system must have its own temperature control device.
   - Exception: Individual zone controls are not required for the specified system because it serves a perimeter area and is designed to offset heating or cooling loads through the building envelope. To qualify for this exception, the area served by the system must have one temperature control device for each building exposure with exterior walls facing a single orientation for 50 contiguous feet or more, and each temperature control must be located within the spaces served by the system.
2. Hydronic heating and cooling coils must be equipped with a way to pressure test connections and measure and balance water flow and pressure.
3. An integrated air economizer is required for individual cooling systems over 65 kBtu/h in the selected climate. An integrated economizer allows simultaneous operation of outdoor-air and mechanical cooling.
4. Systems serving multiple thermostatic control zones must be variable-flow systems. Zone terminal controls must reduce the flow of primary supply air before reheating, recooling, or mixing air streams.
5. Multiple-zone systems must include controls capable of resetting the supply air temperature by at least 25% of the difference between the design supply air temperature and the design room temperature.
6. Fan system terminal units must have separate hot and cold water supply and return piping.
7. Multiple packaged boilers must have automatic controls capable of sequencing the operation of the boilers.
8. A single boiler with >500 kBtu/h input capacity must have a multistaged or modulating burner.
9. Two-pipe changeover heating/cooling controls must: a) allow a deadband between changeover from one mode (heating/cooling) to the other of at least 15 degrees F outside temperatures b) allow operation in one mode (heating/cooling) for at least 4 hours before changing over to the other mode c) allow heating and cooling supply temperatures at the changeover point to be no more than 30 degrees F apart.

Generic Requirements: Must be met by all systems to which the requirement is applicable:

1. Design heating and cooling loads for the building must be determined using procedures in the ASHRAE Handbook of Fundamentals or an approved equivalent calculation procedure.
2. All equipment and systems must be sized to be no greater than needed to meet calculated loads. A single piece of equipment providing both heating and cooling must satisfy this provision for one function with the capacity for the other function as small as possible, within available equipment options.
   - Exception: The equipment and/or system capacity may be greater than calculated loads for standby purposes. Standby equipment must be automatically controlled to be off when the primary equipment and/or system is operating.

   - Exception: Multiple units of the same equipment type whose combined capacities exceed the calculated load are allowed if they are provided with controls to sequence operation of the units as the load increases or decreases.
3. Each heating or cooling system serving a single zone must have its own temperature control device.
4. Each humidification system must have its own humidity control device.
5. The system or zone control must be a programmable thermostat or other automatic control meeting the following criteria: a) capable of setting back temperature to 55 degrees F during heating and setting up to 85 degrees F during cooling, b) capable of automatically setting back or shutting down systems during unoccupied hours using 7 different day schedules, c) have an accessible 2-hour occupant override, d) have a battery back-up capable of maintaining programmed settings for at least 10 hours without power.
   - Exception: A setback or shutoff control is not required on thermostats that control systems serving areas that operate continuously.
   - Exception: A setback or shutoff control is not required on systems with total energy demand of 2 kW (6,826 Btu/h) or less.
6. Outdoor-air supply systems with design airflow rates >3,000 cfm of outdoor air and all exhaust systems must have dampers that are automatically closed while the equipment is not operating.
7. The system must supply outside ventilation air as required by Chapter 4 of the International Mechanical Code. If the ventilation system is designed to supply outdoor-air quantities exceeding minimum required levels, the system must be capable of reducing outdoor-air flow to the minimum required levels.
8. Air ducts must be insulated to the following levels: a) Supply and return air ducts for conditioned air located in unconditioned spaces (spaces neither heated nor cooled) must be insulated with a minimum of R-5. Unconditioned spaces include attics, crawl spaces, unheated basements, and unheated garages. b) Supply and return air ducts and plenums must be insulated to a minimum of R-8 when located outside the building. c) When ducts are located within exterior components (e.g., floors or roofs), minimum R-8 insulation is required only between the duct and the building exterior.
   - Exception: Duct insulation is not required on ducts located within equipment.
   - Exception: Duct insulation is not required when the design temperature difference between the interior and exterior of the duct or plenum does not exceed 15 degrees F.
9. All joints, longitudinal and transverse seams, and connections in ductwork must be securely sealed using weldments; mechanical fasteners with seals, gaskets, or mastics; mesh and mastic sealing systems; or tapes. Tapes and mastics must be listed and labeled in accordance with UL 181A or UL 181B.
   - Exception: Continuously welded and locking-type longitudinal joints and seams on ducts operating at static pressures less than 2 inches w.g. pressure classification.
10. Mechanical fasteners and seals, mastics, or gaskets must be used when connecting ducts to fans and other air distribution equipment, including multiple-zone terminal units.
11. All pipes serving space-conditioning systems must be insulated as follows: Hot water piping for heating systems: 1 in. for pipes <=1 1/2-in. nominal diameter, 2 in. for pipes >1 1/2-in. nominal diameter. Chilled water, refrigerant, and brine piping systems: 1 in. insulation for pipes <=1 1/2-in. nominal diameter, 1 1/2 in. insulation for pipes >1 1/2-in. nominal diameter. Steam piping: 1 1/2 in. insulation for pipes <=1 1/2-in. nominal diameter, 3 in. insulation for pipes >1 1/2-in. nominal diameter.
   - Exception: Pipe insulation is not required for factory-installed piping within HVAC equipment.
   - Exception: Pipe insulation is not required for piping that conveys fluids having a design operating temperature range between 55 degrees F and 105 degrees F.
   - Exception: Pipe insulation is not required for piping that conveys fluids that have not been heated or cooled through the use of fossil fuels or electric power.
   - Exception: Pipe insulation is not required for runout piping not exceeding 4 ft in length and 1 in. in diameter between the control valve and HVAC coil.
12. Operation and maintenance documentation must be provided to the owner that includes at least the following information: a) equipment capacity (input and output) and required maintenance actions b) equipment operation and maintenance manuals c) HVAC system control maintenance and calibration information, including wiring diagrams, schematics, and control sequence descriptions; desired or field-determined set points must be permanently recorded on control drawings, at control devices, or, for digital control systems, in programming comments d) complete narrative of how each system is intended to operate.
13. Each supply air outlet or diffuser and each zone terminal device (such as VAV or mixing box) must have its own balancing device. Acceptable balancing devices include adjustable dampers located within the ductwork, terminal devices, and supply air diffusers.
14. Thermostats controlling both heating and cooling must be capable of maintaining a 5 degrees F deadband (a range of temperature where no heating or cooling is provided).
   - Exception: Deadband capability is not required if the thermostat does not have automatic changeover capability between heating and cooling.
   - Exception: Special occupancy or special applications where wide temperature ranges are not acceptable and are approved by the authority having jurisdiction.
15. Stair and elevator shaft vents must be equipped with motorized dampers capable of being automatically closed during normal building operation and interlocked to open as required by fire and smoke detection systems. All gravity outdoor air supply and exhaust hoods, vents, and ventilators must be equipped with motorized dampers that will automatically shut when the spaces served are not in use.
   - Exception: Gravity (non-motorized) dampers are acceptable in buildings less than three stories in height above grade.
   - Exception: Ventilation systems serving unconditioned spaces.
16. Hydronic systems that use a common return system for both hot water and chilled water must not be used.

COM*check* Software Version 3.7.1

Interior Lighting Compliance Certificate

2003 IECC

Section 1: Project Information

Project Type: **New Construction**
Project Title : Renovation of the Bryan City Hall Annex

Construction Site:
29th and Texas Avenue
Bryan, TX 77805

Owner/Agent:
City of Bryan
P.O. Box 1000
Bryan, TX 77805

Designer/Contractor:
Brazos Valley Engineering, Inc.
3209 Earl Rudder Freeway South
Suite 200
College Station, TX 77845-6011
(979) 693-2835
harold@bvei.com

Section 2: General Information

Building Use Description by: **Activity Type**

Activity Type(s)	Floor Area
Office	6360
Corridor, Restroom, Support Area	3543
Classroom/Lecture Hall	829
Kitchen	215
Exercise Center	2965
Storage, Industrial and Commercial	2806
Other	4020

Section 3: Requirements Checklist

Interior Lighting:

❑ 1. Total proposed watts must be less than or equal to total allowed watts.

Allowed Watts	Proposed Watts	Complies
22763	22592	YES

❑ 2. Exit signs 5 Watts or less per sign.

Exterior Lighting:

❑ 3. Efficacy greater than 45 lumens/W.
Exceptions:
Specialized lighting highlighting features of historic buildings; signage; safety or security lighting; low-voltage landscape lighting.

Controls, Switching, and Wiring:

❑ 4. Independent controls for each space (switch/occupancy sensor).
Exceptions:
Areas designated as security or emergency areas that must be continuously illuminated.
Lighting in stairways or corridors that are elements of the means of egress.

❑ 5. Master switch at entry to hotel/motel guest room.
❑ 6. Individual dwelling units separately metered.
❑ 7. Each space provided with a manual control to provide uniform light reduction by at least 50%.
Exceptions:
Only one luminaire in space;

An occupant-sensing device controls the area;
The area is a corridor, storeroom, restroom, public lobby or guest room;
Areas that use less than 0.6 Watts/sq.ft.

❑ 8. Automatic lighting shutoff control in buildings larger than 5,000 sq.ft.
Exceptions:
Areas with only one luminaire, corridors, storerooms, restrooms, or public lobbies.

❑ 9. Photocell/astronomical time switch on exterior lights.
Exceptions:
Lighting intended for 24 hour use.

❑ 10.Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).
Exceptions:
Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

Section 4: Compliance Statement

Compliance Statement: The proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2003 IECC, Chapter 8, requirements in COM*check* Version 3.7.1 and to comply with the mandatory requirements in the Requirements Checklist.

HAROLD B. KUHN, P.E.		04-05-10
Name - Title	Signature	Date

STATE OF TEXAS
HAROLD B.KUHN
50687
REGISTERED
PROFESSIONAL ENGINEER

04-05-10

COM*check* Software Version 3.7.1

Interior Lighting Application Worksheet

2003 IECC

Section 1: Allowed Lighting Power Calculation

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B x C)
Office	6360	1.1	6996
Allowance: Visual Display Terminals / Fix. ID: A	6360(a)	0.35	2226(b)
Corridor, Restroom, Support Area	3543	0.9	3189
Classroom/Lecture Hall	829	1.4	1161
Kitchen	215	1.2	258
Exercise Center	2965	0.9	2669
Storage, Industrial and Commercial	2806	0.8	2245
Other	4020	1	4020
		Total Allowed Watts =	22763

(a) Area claimed must not exceed the illuminated area permitted for this allowance type.
(b) Allowance is (B x C) or the actual wattage of the fixtures given in Section 2, whichever is less.

Section 2: Proposed Lighting Power Calculation

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Office (6360 sq.ft.)				
Linear Fluorescent 1: A: 2x4 Parabolic Fluorescent / 48" T8 32W / Electronic	3	84	95	7980
Linear Fluorescent: B: 2x4 Fluorescent Lay-in / 48" T8 32W / Electronic	2	9	65	585
Compact Fluorescent 1: D: Cmpt Fluor Down Light / Triple 4-pin 42W / Electronic	1	7	45	315
Compact Fluorescent 2: E: Cmpt Fluor Pendant / Triple 4-pin 13W / Electronic	1	3	13	39
Corridor, Restroom, Support Area (3543 sq.ft.)				
Linear Fluorescent 1: A: 2x4 Parabolic Fluorescent / 48" T8 32W / Electronic	3	2	95	190
Linear Fluorescent 2: B & BE: 2x4 Fluorescent Lay-in / 48" T8 32W / Electronic	2	37	65	2405
Linear Fluorescent 3: G: 4' Fluor Wall Bracket / 48" T8 32W / Electronic	2	3	65	195
Linear Fluorescent 4: G1: 3' Fluor Wall Bracket / 36" T8 25W / Electronic	2	1	48	48
Classroom/Lecture Hall (829 sq.ft.)				
Linear Fluorescent 1: A: 2x4 Parabolic Fluorescent / 48" T8 32W / Electronic	3	11	95	1045
Kitchen (215 sq.ft.)				
Linear Fluorescent 2: B: 2x4 Fluorescent Lay-in / 48" T8 32W / Electronic	2	3	65	195
Exercise Center (2965 sq.ft.)				
Linear Fluorescent 2: B: 2x4 Fluorescent Lay-in / 48" T8 32W / Electronic	2	48	65	3120
Storage, Industrial and Commercial (2806 sq.ft.)				
Linear Fluorescent 2: B: 2x4 Fluorescent Lay-in / 48" T8 32W / Electronic	2	29	65	1885
Linear Fluorescent 11: H: 4' Fluorescent Strip / 48" T8 32W / Electronic	2	17	65	1105
Other (4020 sq.ft.)				
Linear Fluorescent 1: A: 2x4 Parabolic Fluorescent / 48" T8 32W / Electronic	3	36	95	3420
Linear Fluorescent 13: B1: 1x4 Fluorescent Lay-in / 48" T8 32W / Electronic	2	1	65	65
			Total Proposed Watts =	22592

Section 3: Compliance Calculation

If the Total Allowed Watts minus the Total Proposed Watts is greater than or equal to zero, the building complies.

Total Allowed Watts =	22763
Total Proposed Watts =	22592
Project Compliance =	171

Interior Lighting PASSES. Design 1% better than code.

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HAROLD B.KUHN
50687
REGISTERED
PROFESSIONAL ENGINEER

04-05-10

Renovation of the
Bryan City Hall Annex

Owner: City of Bryan, P.O. Box 1000, Bryan, Texas 77805

Revisions

Number	Date

Project 0918
APRIL 6, 2010

EC1.0

of

ABBREVIATIONS

A

A	AIR (COMPRESSED)
AAV	AIR ADMITTANCE VALVE (STUDOR VALVE)
ABV	ABOVE
A/C	AIR CONDITIONING
AC	ALTERNATING CURRENT, AIR COMPRESSOR
ACI	AMERICAN CONCRETE INSTITUTE
AD	ACCESS DOOR, AREA DRAIN
ADJ	ADJUSTABLE
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM
AMB	AMBIENT
AP	ACCESS PANEL, ALARM PANEL
ARCH	ARCHITECT, ARCHITECTURAL
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
ATS	AUTOMATIC TRANSFER SWITCH
AV	ACID VENT, AIR VENT, AREA VALVE
AVG	AVERAGE
AW	ACID WASTE
AWS	AMERICAN WELDING SOCIETY
AUX	AUXILIARY

B

BC	BELOW COUNTER
B/C	BACK OF CURB
BFV	BUTTERFLY VALVE
BH	BOX HYDRANT
BLDG	BUILDING
BM	BENCHMARK
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF STRUCTURE
BT	BATH TUB, BREAK TANK
BTU	BRITISH THERMAL UNIT
BV	BALL VALVE
BWV	BACK WATER VALVE

C

C	CELSIUS
CAB	CABINET
CB	CATCH BASIN
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CIRC	CIRCULATING
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMP	CORRIGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CPI	CAST IRON PIPE INSTITUTE
CPVC	CHLORINATED POLYVINYL CHLORIDE
CO	CLEAN OUT
COL	COLUMN
COMB	COMBINATION
COMP	COMPRESSOR
CON	CONVERTER
CONC	CONCRETE, CONCENTRIC
COND	CONDENSER, CONDENSATE
CONN	CONNECTION
CONT	CONTINUOUS, CONTINUATION
CONTR	CONTROLLER, CONTRACTOR
CRP	CORROSION RESISTANT PIPE
CRT	CATHODE RAY TUBE
CT	COOLING TOWER
CTR	CENTER
CU	COPPER
CW	COLD WATER
Cv	CAPACITY INDEX
CV	CHECK VALVE

D

D	DEPTH, DRAIN
DC	DIRECT CURRENT
DCO	DOUBLE CLEAN-OUT
DDC	DIRECT DIGITAL CONTROL
DE	DEIONIZED WATER SUPPLY
DEP	DEIONIZED WATER PUMP
DER	DEIONIZED WATER RETURN
DESIG	DESIGNATION
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DISC	DISCONNECT
DN	DOWN
DS	DOWNSPOUT, DOUBLE SUCTION
DW	DISHWASHER
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWP	DOMESTIC WATER PUMP

E

EA	EACH
EC	ELECTRICAL CONTRACTOR
ECC	ECCENTRIC
EDF	ELECTRIC DRINKING FOUNTAIN
EFF	EFFICIENCY
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMERG	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER
EPO	EMERGENCY POWER OFF
EQ	EQUAL
EQUIP	EQUIPMENT
ES	END SUCTION, EMERGENCY SHOWER
ET	EXPANSION TANK
ETR	EXISTING TO REMAIN
EVAP	EVAPORATOR
EWH	ELECTRIC WATER HEATER
EWT	ENTERING WATER TEMPERATURE

E (cont'd)

EX	EXPLOSION-PROOF
EXT	EXTERNAL
EXTG	EXISTING

F

F	FARENHEIT, FIRE
FBO	FURNISHED BY OTHERS
FCO	FLOOR CLEAN OUT
FCS	FLOOR CONTROL STATION
FD	FLOOR DRAIN
FDS	FIRE DEPARTMENT SIAMESE
FDV	FIRE DEPARTMENT VALVE
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FHV	FIRE HOSE VALVE
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FL	FLOW LINE
FLR	FLOOR
FOP	FUEL OIL PUMP
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VENT
FP	FIRE PUMP
FRZR	FREEZER
FS	FLOW SWITCH, FIRE SPRINKLER
FT	FOOT, FEET
FUT	FUTURE

G

G	GAS
GA	GAGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GLV	GLOBE VALVE
GND	GROUND
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GV	GATE VALVE

H

H	HEIGHT
HB	HOSE BIB
HD	HEAD, HUB DRAIN
HE	HEAT EXCHANGER
HORIZ	HORIZONTAL
HP	HORSEPOWER, HALON PANEL
HKP	HOUSEKEEPING PAD
HSC	HORIZONTAL SPLIT CASE
HTG	HEATING
HTR	HEATER
HW	HOT WATER
HWC	HOT WATER CIRCULATOR
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HZ	HERTZ

I

ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH
INSUL	INSULATION
INT	INTERNAL, INTERIOR
IW	INDIRECT WASTE

J

JB	JUNCTION BOX
JP	JOCKEY PUMP

K

KEC	KITCHEN EQUIPMENT CONTRACTOR
KO	KNOCKOUT
KVA	KILOVOLT-AMPS
KW	KILOWATT
KWH	KILOWATT-HOUR

L

L	LENGTH, LAVATORY
LA	LABORATORY AIR
LAV	LAVATORY
LF	LINEAR FEET
LRA	LOCKED ROTOR AMPS
LV	LABORATORY VACUUM
LVL	LEVEL
LWCO	LOW WATER CUT OFF
LWT	LEAVING WATER TEMPERATURE

M

M	METER
MA	MEDICAL AIR
MAP	MASTER ALARM PANEL
MAX	MAXIMUM
MBH	THOUSANDS OF BTU'S PER HOUR
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFR	MANUFACTURER
MG	MEDICAL GAS OUTLET
MH	MANHOLE
MI	MALLEABLE IRON
MIN	MINIMUM
MP	MEDICAL AIR PURIFIER
MS	MOP SINK
MTD	MOUNTED
MU	MAKE-UP
MV	MEDICAL VACUUM

N

N	NITROGEN
N.C.	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION FIRE ASSOCIATION
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NO.	NUMBER
NO,NOS	NITROUS OXIDE
NTS	NOT TO SCALE

O

O	OXYGEN
OC	ON CENTER
OD	OUTSIDE DIAMETER, OVERFLOW DRAIN
OE	ORAL EVALUATION
OPG	OPENING
OS&Y	OPEN STEM AND YOLK

P

P	PUMP, PLUMBING EQUIPMENT
PC	PLUMBING CONTRACTOR
PCR	PUMPED CONDENSATE RETURN
PD	PRESSURE DROP, PLANTER DRAIN
PH	PHASE
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PNEU	PNEUMATIC
PNL	PANEL
PNTH	PENTHOUSE
PP	POLYPROPYLENE
PPM	PARTS PER MILLION
PRI	PRIMARY
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	PLUMBING TRIM
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
PW	PROCESS WASTE

Q

QTY	QUANTITY

R

R	RISER
RAD	REFRIDGERATED AIR DRYER
RCP	REFLECTED CEILING PLAN, REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RE:,REF	REFERENCE, REFER
RECIRC	RECIRCULATE
RED	REDUCER
REFR	REFRIGERATOR
REINF	REINFORCING
REQD	REQUIRED
REV	REVISION, REVISE
RH	RELATIVE HUMIDITY
RKVA	RUNNING KILOVOLT-AMPS
RKW	RUNNING KILOWATTS
RLA	RUNNING LOAD AMPS
RM	ROOM, REFRIGERATION MACHINE
RPM	REVOLUTIONS PER MINUTE
RV	RELIEF VALVE

S

SAN	SANITARY SEWER
SC	STEAM CONVERTER
SCHED	SCHEDULED
SCR	SILICON CONTROLLED RECTIFIER
SD	STORM DRAIN
SE	SEWAGE EJECTOR
SEC	SECONDARY
SECT	SECTION
SF	SQUARE FEET
SFCS	SPRINKLER FLOOR CONTROL STATION
SH	SHOWER
SHT	SHEET
SIM	SIMILAR
SK	SINK
SKVA	STARTING KILOVOLT-AMPS
SKW	STARTING KILOWATTS
SP	SUMP PUMP
SPEC	SPECIFICATION
SPR	SPRINKLER
SQ	SQUARE
SS	SERVICE SINK / STAINLESS STEEL
SSD	SUBSURFACE DRAIN
SSFU	SANITARY SEWER FIXTURE UNITS
STD	STANDARD
STL	STEEL
STR	STRAINER
SURF	SURFACE
SUSP	SUSPEND
SV	SANITARY VENT

T

TCC	TEMPERATURE CONTROL COMPRESSOR
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TH BLK	THRUST BLOCK
TOC	TOP OF CURB
TP	TRAP PRIMER
TSTAT	THERMOSTAT
TW	TEMPERED WATER
TYP	TYPICAL

U

U	URINAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES, INC
UON	UNLESS OTHERWISE NOTED
U/F	UNDERFLOOR
U/S	UNDERSLAB

V

V	VOLT, VENT, VACUUM
VA	VOLT-AMPERE
VAC	VACUUM
VB	VALVE BOX
VCP	VITRIFIED CLAY PIPE
VEL	VELOCITY
VP	VACUUM PUMP
VERT	VERTICAL
VIB	VALVE IN BOX
VOV	VALVE ON VERTICAL
VTR	VENT THRU ROOF

W

W	WATT, WIDTH, WASTE
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WCO	WALL CLEAN-OUT
WH	WALL HYDRANT
WM	WATER METER
WP	WATHERPROOF
WPD	WATER PRESSURE DROP
WS	WATER SOFTNER
WT	WATERTIGHT, WEIGHT
WWF	WELDED WIRE FABRIC

Y

YH	YARD HYDRANT

Z

Z	ZONE
ZV	ZONE VALVE

PLUMBING SYMBOLS

(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS)

PIPING TYPES

- AW — ACID WASTE
- AV — ACID VENT
- CA — COMPRESSED AIR
- CAUG — COMPRESSED AIR UNDERGROUND
- DW — DOMESTIC WATER SUPPLY
- DHS — DOMESTIC HOT WATER SUPPLY
- DHR — DOMESTIC HOT WATER RETURN
- · · — DOMESTIC WATER BELOW GRADE/FLOOR
- DE — DEIONIZED WATER SUPPLY
- DER — DEIONIZED WATER RECIRCULATION
- D — DRAIN LINE
- F — FIRE STANDPIPE, FIRE LINE
- FS — FIRE SPRINKLER
- FOS — FUEL OIL SUPPLY
- FOR — FUEL OIL RETURN
- FOV — FUEL OIL VENT
- GAS — GAS LINE ABOVE GROUND
- GAS UG — GAS LINE UNDERGROUND
- GW — GREASE (KITCHEN) WASTE
- N — NITROUS OXIDE
- OX — OXYGEN
- OD — OVERFLOW DRAIN
- — — — — — SANITARY WASTE BELOW FLOOR
- SANITARY WASTE ABOVE FLOOR
- — · — · — SANITARY VENT
- SD — STORM DRAIN
- TE — TEMPERED WATER
- V — VACUUM
- CA — COMPRESSED AIR

PIPING SYMBOLS

- AIR ADMITTANCE VALVE (STUDOR VALVE)
- AIR VENT AUTOMATIC
- AIR VENT MANUAL
- BALL VALVE
- BALANCING VALVE WITH DIFFERENTIAL PRESSURE TAPS
- GAS VALVE
- WCO — CLEANOUT WALL MOUNTED
- FCO — CLEANOUT FLOOR
- GATE VALVE
- CHECK VALVE
- DIRECTION OF FLOW
- DIRECTION OF SLOPE DOWN
- ELBOW UP
- ELBOW DOWN
- EXPANSION JOINT
- FLEXIBLE CONNECTION
- GLOBE VALVE
- OS&Y VALVE
- PIPE ANCHOR
- PRESSURE REDUCING VALVE
- PRESSURE GAUGE WITH GAUGE COCK
- REDUCER CONCENTRIC
- REDUCER ECCENTRIC
- STRAINER WITH BLOW DOWN VALVE
- TEE OUTLET UP
- TEE OUTLET DOWN
- T&P RELIEF VALVE
- THERMOMETER
- THERMOSTATIC MIXING VALVE
- UNION

- VALVE IN DROP
- VALVE IN RISE
- VACUUM BREAKER
- M — WATER METER

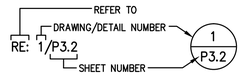
MISCELLANEOUS

- FD — FLOOR DRAIN
- AD — AREA DRAIN
- RD — ROOF DRAIN OR OVERFLOW DRAIN
- HB — HOSE BIB
- WH — WALL HYDRANT
- PLUMBING FIXTURES
- POINT OF NEW CONNECTION TO EXISTING PIPING
- FS — FLOW SWITCH
- WCO — WALL CLEAN OUT
- DCO — DUAL CLEAN OUT
- CO — CLEAN OUT
- HD — HUB DRAIN
- FS — FLOOR SINK
- VB — VALVE BOX

FIREWALL LEGEND

- * — 1-HR FIREWALL
- ** — 2-HR FIREWALL
- *** — 3-HR FIREWALL
- **** — 4-HR FIREWALL

DRAWING/DETAIL REFERENCE KEY



DRAWING LIST

GENERAL NOTES:

1. WORK THESE DRAWINGS WITH THE SPECIFICATIONS. WHERE A CONFLICT OCCURS, THE MOST STRINGENT REQUIREMENT SHALL APPLY.
2. PLUMBING CONTRACTOR SHALL EXECUTE ALL WORK SO THAT IT PRECEDES WITH A MINIMUM OF INTERFERENCE WITH OTHER TRADES. VENTS SHALL BE GANGED WHENEVER POSSIBLE.
3. VERIFY EXACT ROUGH-IN REQUIREMENTS IN FIELD.
4. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL CONNECTIONS TO PLUMBING FIXTURES. THIS INCLUDES, BUT NOT LIMITED TO FURNISHINGS AND INSTALLING ALL TRAPS, DRAINS AND SUPPLIES WITH STOPS.
5. ALL ABOVE GROUND SUPPLY PIPING SHALL BE ASTM B88 TYPE L COPPER. ALL BELOW GROUND SUPPLY PIPING SHALL BE ASTM B88 TYPE K COPPER.
6. ALL WASTE PIPING SHALL BE ASTM D2665 SCH 40 PVC.
7. CUTTING AND PATCHING FOR NEW PENETRATIONS SHALL BE HELD TO A MINIMUM.
8. ALL ITEMS PROJECTING THROUGH ROOFS SHALL BE FLASHED, AND SHALL PROJECT A MINIMUM OF 12" ABOVE THE ROOF. ALL VENTS SHALL BE A MINIMUM OF 10' FROM ANY OUTSIDE AIR INTAKE.
9. ALL FLOOR DRAINS SHALL UTILIZE TRAP SEALS BY PROSET.
10. INSULATE ALL WATER AND WASTE PIPING UNDER LAVATORIES WITH HANDY-SHIELD JACKET BY PLUMBEREX OR EQUAL.
11. PROVIDE VACUUM BREAKERS AT FIXTURES WITH HOSE THREAD CONNECTIONS.
12. PROVIDE DIELECTRIC UNIONS AT ALL DISSIMILAR METAL PIPE CONNECTIONS.
13. LAVATORY FAUCETS SHALL LIMIT HOT WATER FLOW TO 0.5 GPM AND HOT WATER TEMPERATURE TO 110° F.

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	DESCRIPTION	MATERIAL	ACCESSORIES	SAN.	VENT	HW	CW
WC-2	Toilets	American Standard MADERA ELONGATED 16-1/2" (420mm) HIGH' 'Low Consumption' Toilet #3461.160	Vitreous China	Flush Valve: Sloan #111-YG ROYAL Pipe Ring: Sloan #YK Seat: American Standard #5325.024 Flange	3	2	-	1
LV-1	Basins / Lavatories	American Standard #9495.001 'CADET UNIVERSAL ACCESS' Basin, center hole only	Vitreous China	Faucet: American Standard #2000.100X.002 Aerator: American Standard #V05 Drain: McGuire #155WC Supply: McGuire #H165LKN3-LR p-Trap: McGuire #8872C Covering: McGuire #PW2000WC	1 1/4	1	1/2"	1/2"
LV-2	Basins / Lavatories	American Standard #0124.024 'COMRADE' Wall Hung Lavatory	Vitreous China	Faucet: American Standard #2000.100X.002 Aerator: American Standard #V05 Drain: McGuire #155WC Supply: McGuire #H165LKN3-LR p-Trap: McGuire #8872C-17T Carrier: Jay R. Smith #0805-M31-CAN Covering: McGuire #PW2000WC	1 1/4	1	1/2"	1/2"
SK-2	Sinks	Just Manufacturing Model#0236.001 'CADET' Basin Slab	Standard Use - 302/304 Stainless Steel	Faucet: American Standard #4400.641M.002 Aerator: American Standard #LV15 Supply: McGuire #H165LKN5 p-Trap: McGuire #8912C Covering: McGuire #PW2000	1½"	1 1/4"	1/2"	1/2"
SH-1	Showers	Aquarius Bathware Model 418 G 3679 SH Shower Stall	Polyester Gelcoat	Bath/Shower Valve: American Standard #T000.501.002/R120SS 'CERAMIX' Shower Valve Drain: Jay R. Smith #2005A Drain Trap Seal by Pro-Set and p-Trap	2"	1½"	3/4"	3/4"
SH-2	Showers	Aquarius Bathware 'ADA' Shower Stall #703A G 3698 BF PKG ONE ADA including 33.5x18x1.5 Smooth SS L-bar and 24x1.5 Smooth SS S-bar and 32x21 Frameless White HDPE Fold-up Seat	Polyester GelCoat	Bath/Shower Valve: American Standard #T385XHWD.501.002/R120SS 'RELIANT 3' Bath and Shower Valve only American Standard #1660.650.002 'THREE FUNCTION RAIN' (Gentle/Hand/Massage Spray) American Standard #1662.600.002 'Hand Shower' American Standard #1660.400.002 Vacuum Breaker American Standard #1660.440.002 C.P. Two Way in-wall Diverter. Drain: Jay R. Smith #2005A Drain Trap Seal by Pro-Set and p-Trap	2"	1½"	3/4"	3/4"
EDF-1	Fountain Coolers	Haws Hi-Low Fountain Coolers #HWUACP8L complete w/ cane apron	Stainless Steel Receptor and ABS/PVC Cabinet	Supply: McGuire #HST11BV p-Trap: McGuire #8872C-17T Carrier: Jay R. Smith #0823-2	1 1/4	1	-	1/2"
FD-1	Drain Specialties	Jay R. Smith Floor Drain #2010 03-B05SS	Duco Coated Cast Iron	Trap Seal by Pro-set	3"	2"	-	-

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04/06/10

BRIAN W. BRUMMITT
74740
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS

Renovation of the Bryan City Hall Annex

Owner: City of Bryan, P.O. Box 1000, Bryan, Texas 77805

Revisions

Number	Date

Project 0918
APRIL 6, 2010

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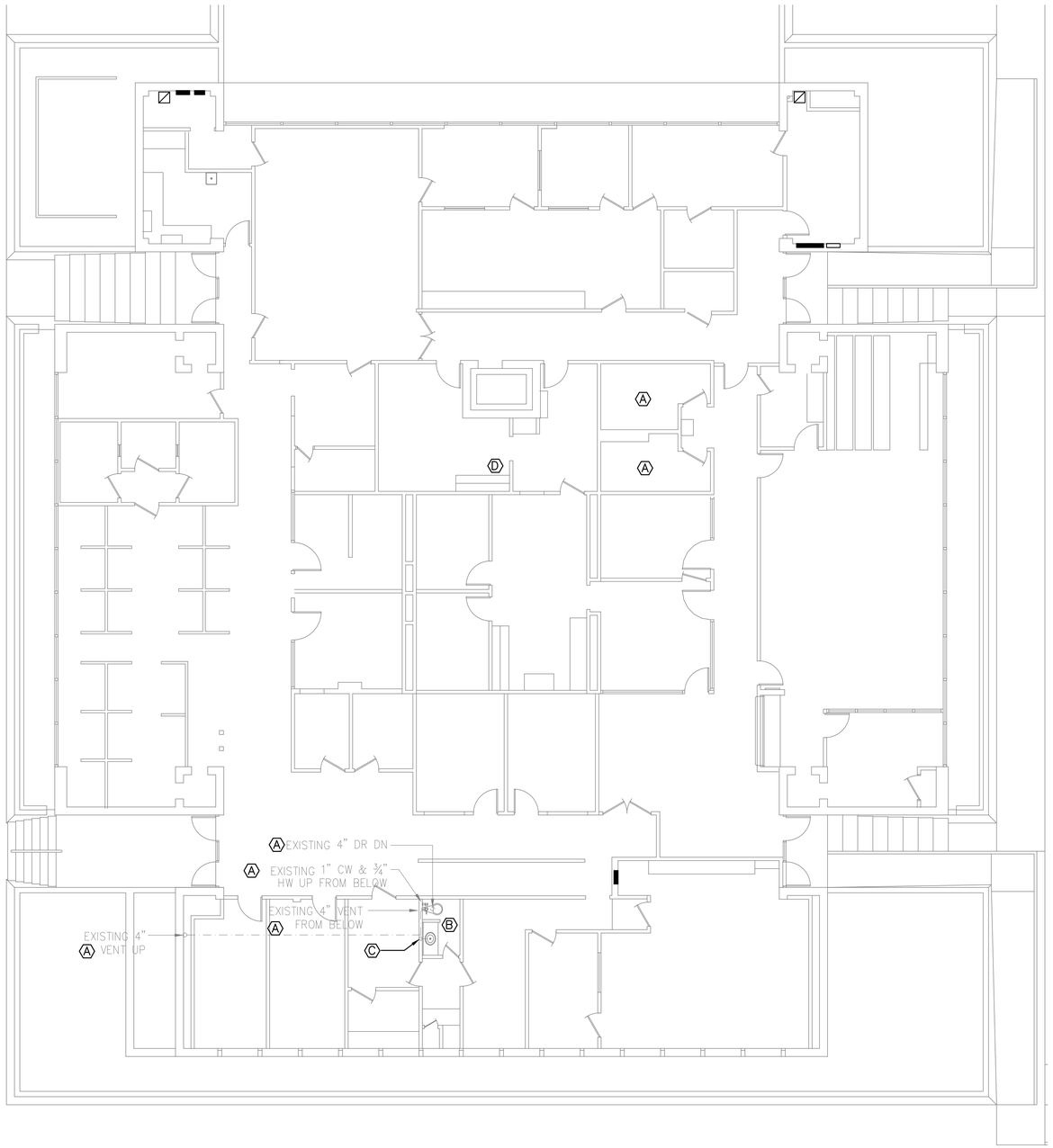
of

KEYED NOTES:

Ⓐ EXISTING TO REMAIN.
Ⓑ REMOVE EXISTING FIXTURES THIS AREA. PLUG WASTE BELOW SLAB.
Ⓒ REMOVE 2" DR DN & CAP BELOW FLOOR. REMOVE 1½" VENT & CAP ABOVE CEILING.
Ⓓ REMOVE SINK. SUPPLY AND WASTE TO REMAIN.

NOTES:
1. SEE P1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.



1 PLUMBING DEMO – FIRST FLOOR
SCALE: 1/8"=1'

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TRUE NORTH

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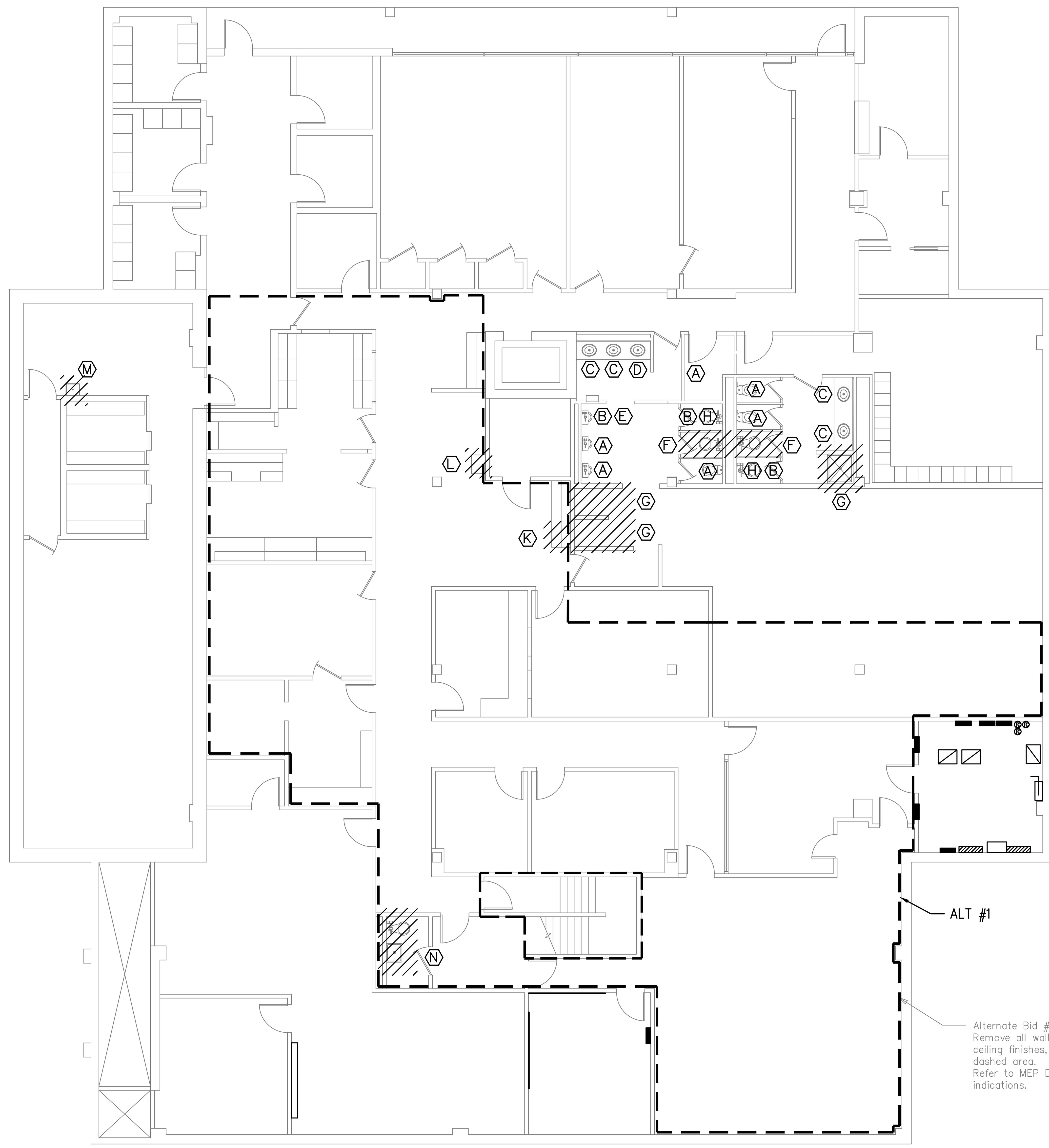
of

NOTES:
1. SEE P1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.

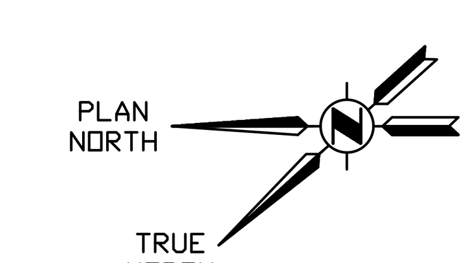
KEYED NOTES:

- (A) EXISTING TO REMAIN
- (B) RE-USE/RE-LOCATE TO MEET ADA HEIGHT.
- (C) REMOVE LAVATORIES. EXISTING WASTE & SUPPLY PIPING TO REMAIN.
- (D) REMOVE LAVATORIES & EXISTING WASTE & SUPPLY PIPING.
- (E) RELOCATE TO ADJUST HEIGHT TO MEET ADA STANDARD.
- (F) ELIMINATE-REMOVE EXISTING WASTE AND SUPPLY PIPING.
- (G) REMOVE EXISTING SHOWER STALLS. RE-USE WASTE AND SUPPLY PIPING.
- (H) REMOVE EXISTING FIXTURES. ADJUST/ADAPT EXISTING WASTE AND SUPPLY PIPING.
- (K) REMOVE EXISTING STAINLESS STEEL KITCHEN SINK.
- (L) EDF TO BE REMOVED.
- (M) SINK TO BE REMOVED.
- (N) REMOVE WATER CLOSET AND LAVATORY.



Alternate Bid #1:
Remove all walls, door frames, flooring and ceiling finishes, lighting fixtures, etc., from dashed area.
Refer to MEP Demolition plans for specific indications.

1 PLUMBING DEMO – BASEMENT
SCALE: 1/8"=1'



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KEYED NOTES:

- Ⓐ 3" WASTE FROM ABOVE DOWN TO EXISTING 4" WASTE BELOW.
- Ⓑ EXISTING TO REMAIN.
- Ⓒ RE: ARCH FOR FURR-OUT AROUND EXISTING PIPING.
- Ⓓ GANG VENTS TOGETHER AND CONNECT TO EXISTING 2½" VENT.
- Ⓔ TIE TO EXISTING WASTE.
- Ⓕ TIE TO WASTE FROM EXISTING WATER CLOSETS.

NOTES:
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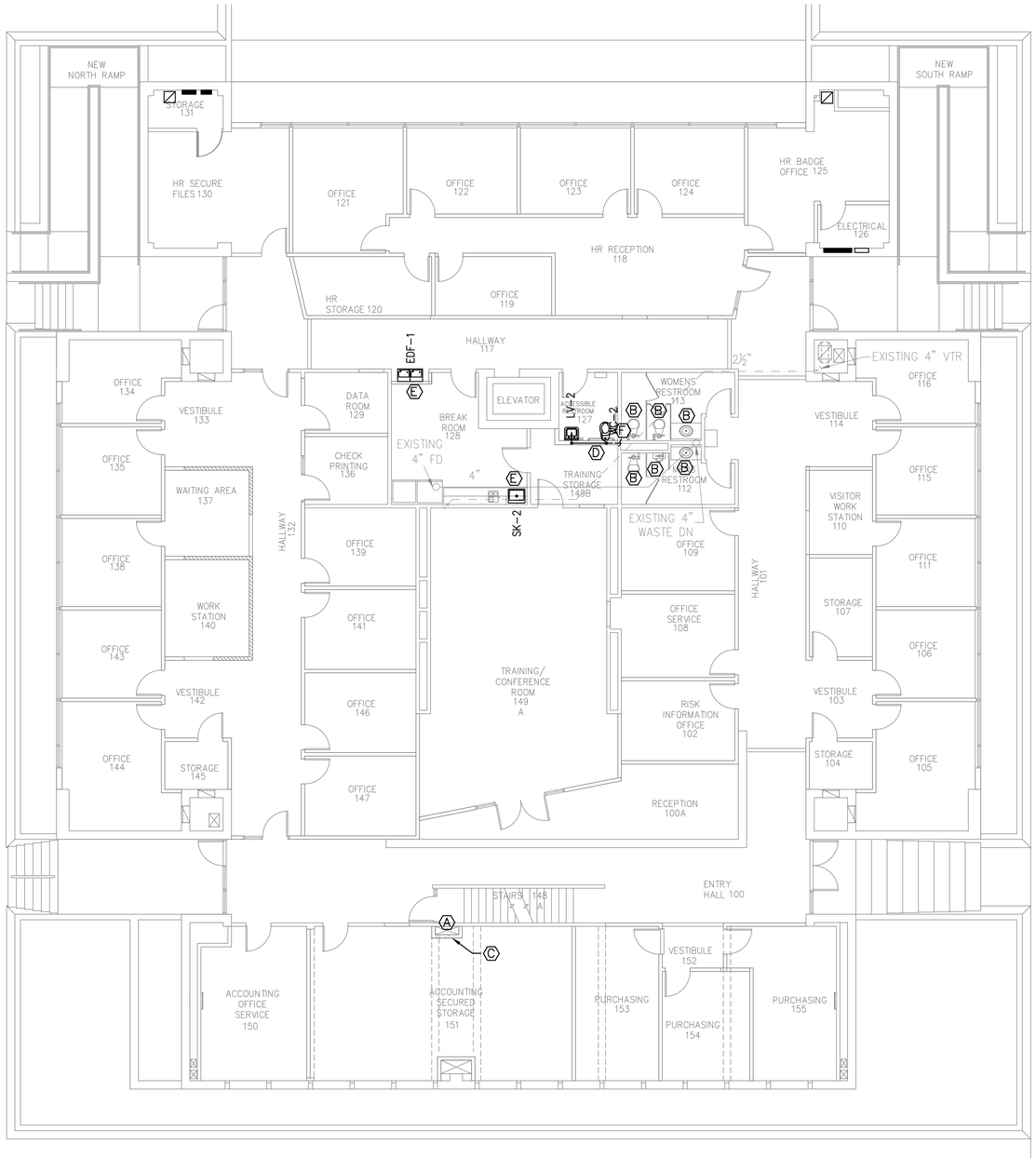

1 PLUMBING WASTE PLAN – FIRST FLOOR
SCALE: 1/8"=1'

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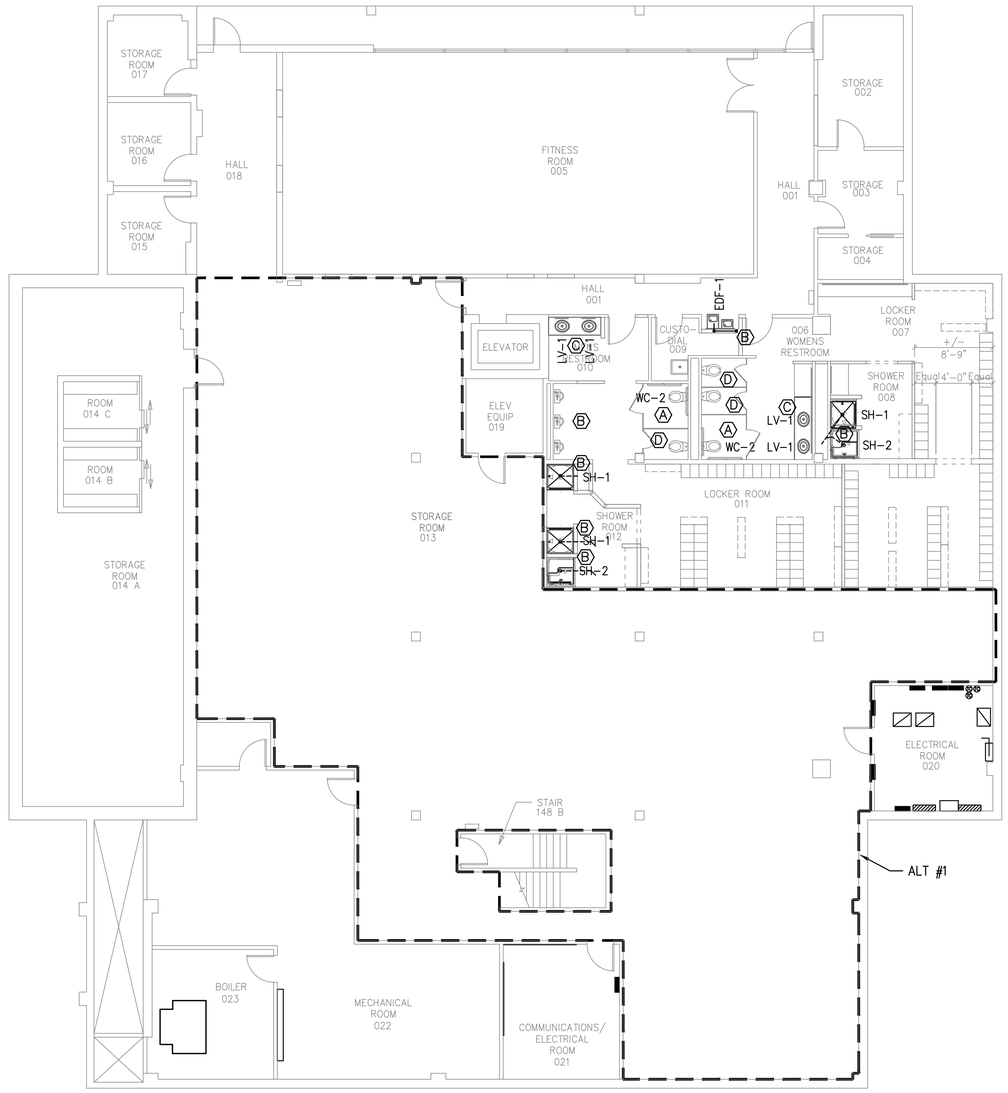
NOTES:
1. SEE P1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.

KEYED NOTES:

(A) PROVIDE/INSTALL NEW WATER CLOSET. MOUNT AT ADA HEIGHT.
(B) TIE TO EXISTING PIPING BELOW SLAB.
(C) REPLACE EXISTING SINKS WITH NEW SINKS AND CONNECT TO EXISTING PIPING.
(D) EXISTING TO REMAIN.
(E) RE-USE EXISTING URINAL. MOUNT AT ADA HEIGHT.



1 PLUMBING WASTE PLAN – BASEMENT – BASE BID
SCALE: 1/8"=1'

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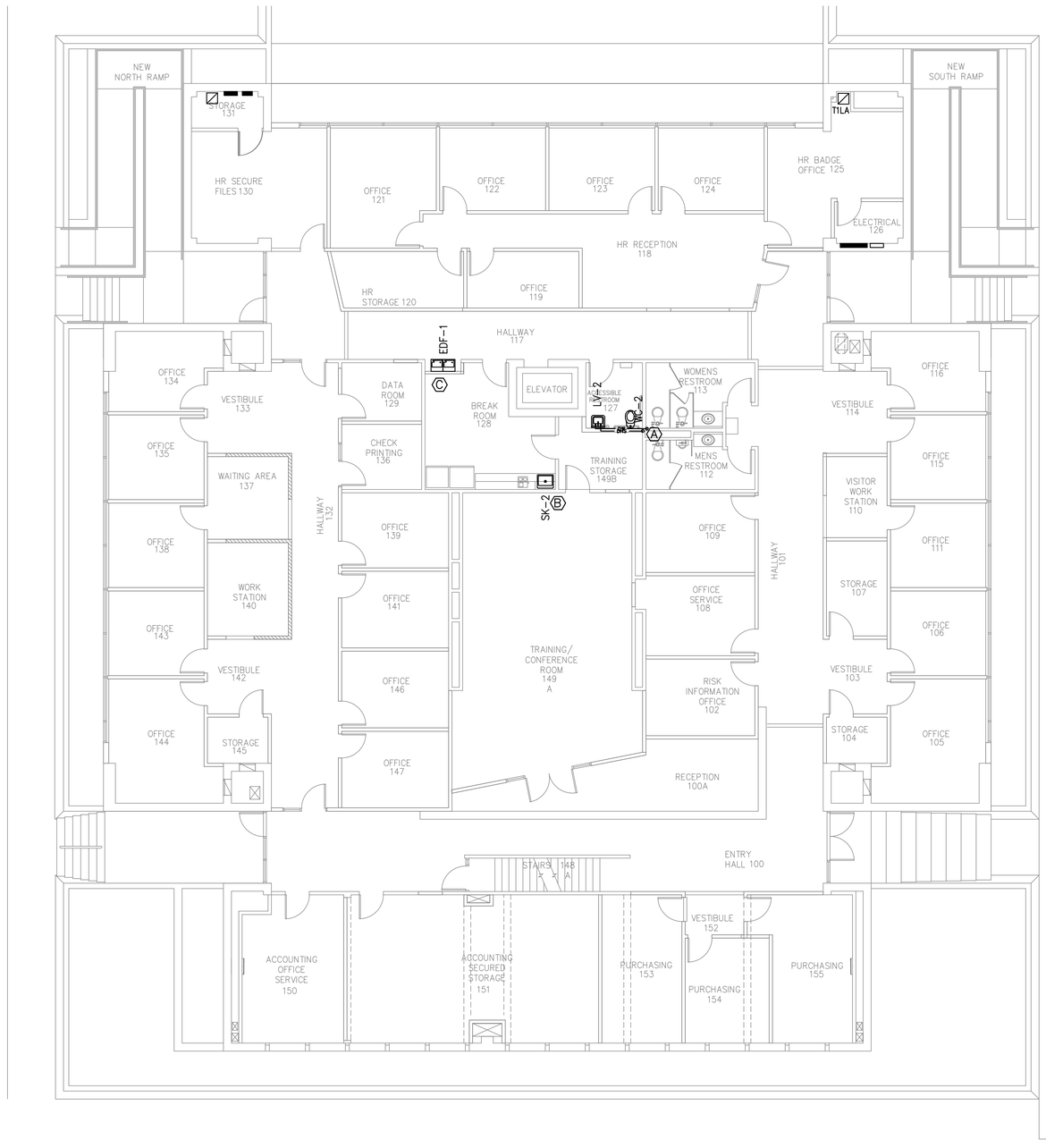
NOTES:
1. SEE P1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.

KEYED NOTES:

(A) CONNECT DW & DHS TO EXISTING PIPING BELOW.
(B) CONNECT DW & DHS TO EXISTING PIPING.
(C) CONNECT DW TO EXISTING PIPING.



1 PLUMBING SUPPLY PLAN – FIRST FLOOR
SCALE: 1/8"=1'

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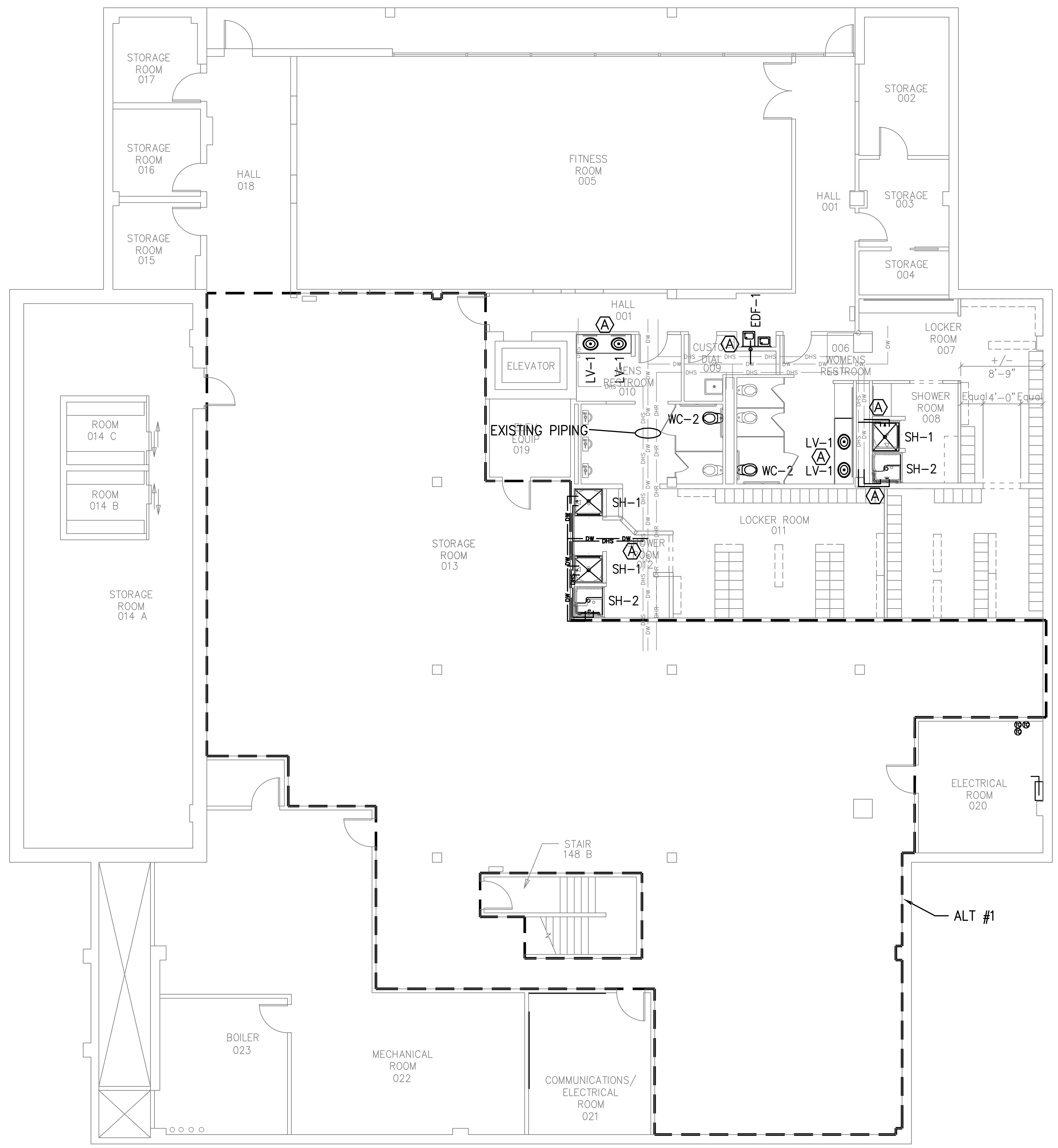
NOTES:
1. SEE P1.0 FOR GENERAL NOTES, LEGEND, SCHEDULES.
2. SEE SCHEDULE FOR LINE SIZES TO INDIVIDUAL FIXTURES.

KEYED NOTES:

(A) CONNECT TO EXISTING PIPING



1 PLUMBING SUPPLY PLAN – BASEMENT – BASE BID
SCALE: 1/8"=1'

PLAN NORTH
TRUE NORTH

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STATE OF TEXAS
BRIAN W. BRUMMIT
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REGISTERED PROFESSIONAL ENGINEER

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Owner: City of Bryan, P.O. Box 1000, Bryan, Texas 77805

Revisions	
Number	Date

Project 0918
APRIL 6, 2010

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of